

Fedco Trees

Annual Catalogue
for Spring Planting
2017



This was one of those perfect
New England days in late summer
where the spirit of autumn
takes a first stealing flight, like a spy,
through the ripening country-side, and,
with feigned sympathy for those
who droop with August heat, puts her cool
cloak of bracing air about leaf and flower.

from "The Courting of Sister Wisby"
by Sarah Orne Jewett, 1894

FEDCO TREES 2017

Welcome to Fedco Trees' 33rd annual order. Our goal is to provide the hardest and healthiest plants available for cold climates, while supporting small-scale, local agriculture and a fair, cooperative and responsible workplace. Our no-frills operation and volume discounts help keep plants affordable. Consider ordering in a group with coworkers, friends or neighbors to further minimize your costs.

Catalog or catalogue?

In its fourth decade now, our paper catalog has mirrored the appearance of catalogs from the late 1880s. What began as an economic choice evolved into our signature style. Some ask why we haven't gone glossy. Or why not let the web do all the work? We are grateful for our website (and our amazing staff who make it happen!) and we deeply appreciate the opportunity to create this print publication as a small tribute to our agrarian and literary heritage and to a slower, more contemplative time. Our catalog is truly a labor of love, our attempt to honor and illuminate the special plants we carry. We have great fun making it. As further encouragement, each year many of you send us love notes—handwritten!—telling us how much you enjoy cozying up to the wood stove with a cup of tea and some Fedco reading. So for now, we'll continue filling the newsprint pages with centuries-old art alongside new drawings and chatty, quirky, anecdotal text.



This year, we dug a little deeper into the writings of old nursery catalogs and agricultural journals dating back a few centuries. Reading these is like traveling back in time. They hold endangered idioms and ways of seeing the world. Obscure cultivars now long gone were then new. Plant descriptions urged customers to consider marketing their fruit in order to earn a living from their homesteads. Pear varieties filled pages and pages. The call to pick up the shovel was ardent. To be sure, it wasn't all romantic. Women's voices were largely muted, prejudice was ever present and Norway maples were all the rage. Some things are better left in the past. On the bright side, these old publications offer inspiration to all of us who want a strong agrarian culture to rise again. We did it once; we can do it again.

A hundred years ago there were several bare-root nurseries in Maine meeting a high demand. Most people lived on farms. The old catalogs and journals held the attention of a wide rural audience throughout this country. That all declined over the decades and Fedco Trees is now a rare bird in these parts. But, there has been a shift. Our last census reflected a 1.5% nationwide increase in the population of young folks returning to farming, boosted by a whopping 40% increase in Maine. *Small Farmer's Journal*, MOFGA and others are keeping the tradition of writing about farming alive. Maybe we'll come full circle and more nurseries will crop up around New England and beyond because everyone will want to plant an Esopus Spitzenburg apple or a McLaughlin pear and "put by" all the small fruits and herbs that their freezers and cellar shelves can hold.

John Bunker, Lauren Cormier and Jen Ries write tree and shrub descriptions. Laura Childs writes perennial and bulb descriptions. Elisabeth Benjamin and Susan Kiralis edit. Joanna Linden proofreads. John Bunker, Laura Childs, Gene Frey and Melissa May do layout.

If you haven't already, check out our Seeds and Bulb catalogs. If you enjoy this one, we're pretty sure you'll like those, too.

Each year we vary the selections of plants. We offer most of the old favorites every year and rotate through dozens of new offerings. You'll find new fruit trees and ornamentals throughout the catalog. You can still **become a MOFGA tree steward** (page 14) by purchasing a rare historic apple tree.

Take special note of the new arrangement of our catalog listings. We've decided to go back to using categories for organizing plants by type. We hope this makes your browsing easier, but of course it's imperfect because so many plants could fit in multiple categories. If you get lost, you can always rely on the index inside the back cover.

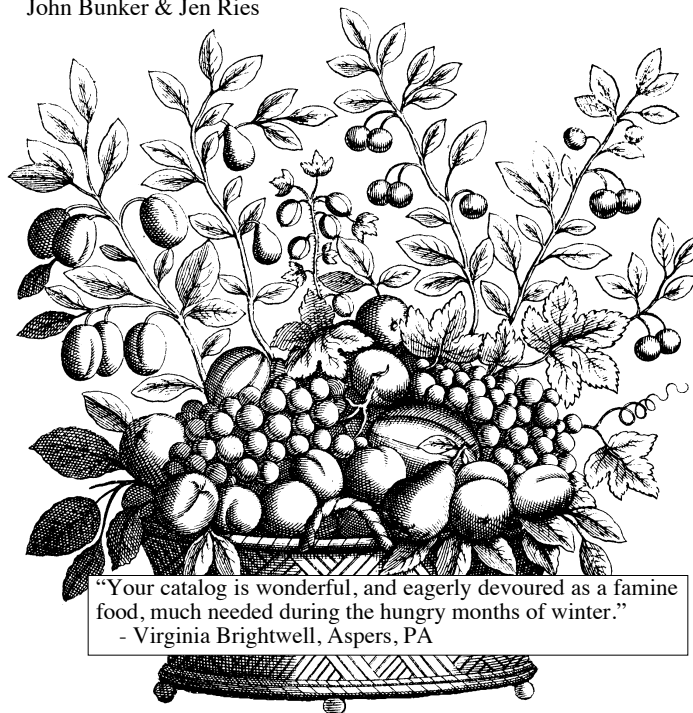
Please note our discount structure for large orders, our discount deadline, and the "Small & Light" shipping option for those who desire only items that don't require a giant box.

We do special orders. If you're looking for large quantities of any item, larger or smaller plants than we are listing, rooted cuttings, or unusual items we're not listing, please write with particulars. We'll do our best to fill your request. Ask us about **custom grafting**: for big orcharding operations, we're ramping up this program to provide large quantities of trees at a discount.

If you have questions or concerns about your order, please contact us. We don't have a huge staff so if we don't respond quickly, don't hesitate to remind us; we are in business to serve you.

We invite you to share your experiences growing plants with us. Many of our selections result from your suggestions. If you know of something growing near you that we should be offering, or if you are interested in growing for us, please write to us. We welcome your comments, suggestions, recipes, anecdotes and ideas.

John Bunker & Jen Ries



"Your catalog is wonderful, and eagerly devoured as a famine food, much needed during the hungry months of winter."
- Virginia Brightwell, Aspers, PA

contact us: questions@fedcoseeds.com or 207-426-9900

Fedco Trees Guarantee Policy

Please inspect your order upon receipt and notify us immediately if something is missing or incorrect. Occasionally, plants incur damage during shipping. If limbs or tops are broken, prune to the next good bud. The plant will do fine. We guarantee to ship you a plant that is healthy, will leaf out, and is true to name. We expect that you will care for the plant from the moment it arrives, plant it in a timely fashion, water it (about 1" per week after bud swell) and protect it (see pp. 67-70.) Because we have no control over growing conditions such as weather, soil, cultural practices, pests, wildlife, or weed whackers, we cannot guarantee a plant's survival past leaf break. Inevitably, some plants die through no fault of yours or ours. If a plant dies during the first growing season, contact us and we will work with you to determine what went wrong. If you see no sign of life, scratch the outer bark with your fingernail. If the inner bark is green, the tree is still alive. Some plants take longer than others to break dormancy, so you may need to be patient. If you have thoroughly cared for the plant and it dies, we will refund the cost of the plant. If you prefer a replacement, we may ask you to pay for the shipping. In some cases, we may choose to split the refund with you. We are partners in the endeavor of filling the planet with plants and we want you to succeed. Don't hesitate to contact us and we'll do our best to troubleshoot your plant problems. **Claims must be made no later than July 31st of the year the plant was received.**

We limit our liability in all instances to the purchase price. The liability of Fedco Seeds, Inc., for breach of warranty, or any loss or damages arising out of the purchase or use of our products, including loss or damages resulting from any negligence whatsoever on our part, or strict liability in tort, shall be limited to the purchase price. By acceptance of the merchandise, the buyer acknowledges that the limitations and disclaimers herein described are conditions of sale, and that they constitute the entire agreement between the parties regarding any warranty or liability. Failure to assert claims within the aforementioned time frame renders this warranty null and void.

For complete **Ordering Instructions**, see page 34.

- Order online at **fedcoseeds.com** (click on Fedco Trees). You can also check product availability and see color photos of most of our trees, shrubs and perennials.
- **Volume discounts!** See the order form (p. 35) for details.
- **Group ordering:** Save on shipping and enjoy volume discounts by ordering with friends. Learn more on p. 34.
- **Shipping:** We ship most orders via UPS starting around March 31. For special shipping options, see p. 34.
- **Pickups:** If you're nearby, come get your order at our Tree Sale.

Important dates & deadlines

- **Volume discount deadline**, Friday, **January 13**, 2017.
- **Ordering deadline** (except scionwood), Friday, **March 3**
- **Shipping** by UPS starts around March 31.
- **Scionwood order deadline**, Friday, **February 17**
- **Shipment of scionwood & rootstock** starts around March 16.
- **Order pickup** at our Tree Sale, Fri.-Sat., **April 28-29**, at our Hinckley Road warehouse in Clinton, Maine.
- **Public Tree Sale**, Fri.-Sat., **May 5-6**. Sale open to the public; orders still available for pickup. **Sale hours 9:00 to 3:00 each day.**



Where Is Everything?

Ordering Instructions	p. 34
Order Forms	center
Tree Planting Guide	67-70
Complete Index	p. 71

begin on page

Apples	4
Rootstock & Scionwood	16, 38
Pears	17
Stone Fruits	19
Small Fruits & Berries	24
Raspberries	24
Blueberries	25
Strawberries	27
Grapes	28
Vines	28
Nuts	31
Shade Trees	32
Conifers	33
Small Trees & Shrubs	39
Crabapples	44
Roses	46
Lilacs	50
Groundcovers	51
Garden Roots	53
Mushrooms	54
Perennials	55
Medicinals	63
Tender Bulbs	66



New for 2017

- New Fruits, Berries, Grapes & Hops
- Perry Pear Collections
- *The Apples of New York* 2-volume set
- Musciewood
- Northern Pecan
- Fruiting Quince
- Everbright Ninebark
- Seven-son Flower
- White Fringetree
- English Hawthorn
- Apothecary's Rose
- Mushroom Kits
- Mulberry
- Chang Bai Kiwi
- New Perennials!
- Gas Plant
- Japanese Iris
- Rattlesnake Master
- Humongous Hosta Mix
- Oriental Poppies
- Spring Ephemerals
- Wintergreen
- And more!

Our **Planting Guide** is incorporated into the catalog. **Save your catalog** for planting and cultural instructions. The catalog is also available online.

Our Variety Descriptions –

- All trees and plants are **bare-rooted** (except where noted), and even a large order can fit into a station wagon. Because of the nature of dealing with living commodities, **size variations will naturally occur** within each crop.
- For fruit trees and berries, the **exact dates of peak ripeness** will vary from place to place.
- The **zone hardiness rating** will aid you in determining whether a plant will be hardy for you. The average minimum temperature in your area determines your zone (chart on p. 71). Apple descriptions have minimum and maximum zones because apples typically need cold climates to produce the best fruit. All other plants list the coldest hardiness zone. Your own soil conditions, microclimate and topography will be equally important in determining the best varieties for you.
- Please note **pollination requirements** for fruits, nuts and berries. Some plants are self-pollinating, others require a second plant for pollination, and others require a second variety.
- We strive to give you accurate information about all the plants we sell. If you notice inaccuracies, please let us know.

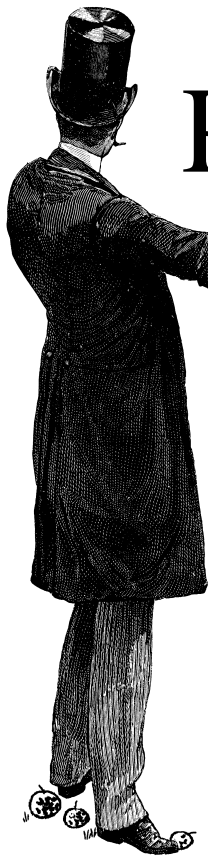
VARIETY NAME → **SEASON OF RIPENESS** → **AG STATION TEST NUMBER** → **PARENTAGE**

YEAR OF INTRODUCTION → **ZONE RANGE** → **BOTANICAL NAME** → **CULTIVAR NAME** → **COMMON NAME** → **MATURE HEIGHT** × **WIDTH**

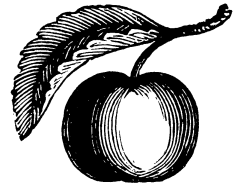
ITEM NUMBER → **SIZE OF PLANT STOCK** → **PLANT VARIETY PROTECTED** → **PRICE** → **ZONE HARDINESS RATING**

Ortiz Spring-Fall. 11-18-75 (Target x Fenway) Santo Domingo, Dominican Republic. 2003. Also called **Big Papi**. Everyone loves this apple. Incredibly productive spring, summer and fall. Grafted from Minnesota where it never did well. Thrives throughout New England. Last year in the catalog. Get yours now. Z3-7. ME Grown. 034A Ortiz \$20.16

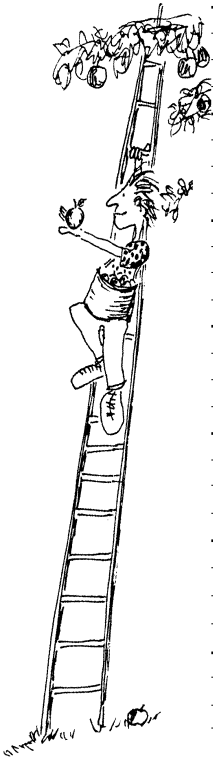
Buffoonus plastifolium 'Yuge' Wattlestump 6x3' New York, USA, 1946. We couldn't resist the tremendous orange fringetree-like blooms crowning this rare specimen. Fruit most unsavory. The best wood for building fences. Irregular spreading form never ceases to amaze. PVP. Z10. Limited supply; the grower was fired. (1-3') 001A Yuge Wattlestump (\$1,000,000.00)



Pick the right apple!



Item	Name	Season	All-Purpose	Fresh Eating	Storage	Cooking	Pies	High Flavor	Hard Cider	
									Bittersharp/Sharp	Bittersweet/Sweet
101	Amber Crab	fall							sharp	
103	Ashmead's Kernel	winter		🍏	🍏			🍏	sharp	
104	Baldwin	winter	🍏	🍏	🍏	🍏	🍏		sharp	
105	Black Oxford	winter	🍏	🍏	🍏	🍏	🍏		sharp	
106	Blake	fall	🍏	🍏		🍏				
107	Blue Pearmain	winter	🍏	🍏	🍏	🍏	🍏			
108	Briggs Auburn	winter	🍏		🍏	🍏	🍏			
109	Calville Blanc d'Hiver	fall	🍏	🍏	🍏	🍏	🍏		sharp	
110	Canadian Strawberry	fall		🍏				🍏	sharp	
111	Charette	fall	🍏	🍏		🍏	🍏			
112	Chisel Jersey	fall								bittersweet
114	Cortland	fall	🍏	🍏		🍏	🍏		sharp	
115	Cox's Orange Pippin	fall	🍏	🍏				🍏		
116	Dabinett	fall								bittersweet
120	Esopus Spitzenburg	winter	🍏	🍏	🍏			🍏	sharp	
123	Freedom	fall		🍏		🍏				
124	Frostbite	fall		🍏	🍏			🍏		
125	Golden Russet	winter		🍏	🍏			🍏	sharp	
126	Granite Beauty	fall	🍏	🍏	🍏	🍏		🍏		
127	Gravenstein	summer	🍏	🍏		🍏	🍏			
128	Gray Pearmain	winter	🍏	🍏	🍏			🍏		
129	Grimes Golden	fall	🍏	🍏		🍏	🍏		sharp	
130	Harmon	fall		🍏				🍏		
131	Harrison	fall							sharp	
132	Harry Masters Jersey	fall								bittersweet
133	Hewe's Virginia Crab	fall							sharp	
134	Honeycrisp	winter		🍏	🍏			🍏		
135	Hudson's Golden Gem	fall		🍏	🍏			🍏		
136	Kavanagh	fall	🍏	🍏		🍏				
137	King of Tompkins County	fall		🍏		🍏		🍏		
138	Kingston Black	fall							bittersharp	
139	Liberty	fall	🍏	🍏		🍏				
142	Macoun	fall		🍏				🍏		
143	Major	fall								bittersweet
144	McIntosh	fall	🍏	🍏		🍏				
146	Milden	winter	🍏	🍏	🍏	🍏	🍏			
147	Moses Wood	summer	🍏	🍏		🍏	🍏			
150	Northern Spy	winter	🍏	🍏	🍏	🍏	🍏	🍏	sharp	
152	Pomme d'Or	summer	🍏	🍏		🍏				
153	Poorfarm Pleasure	fall				🍏			bittersharp	
154	Porter's Perfection	fall							bittersharp	
156	Prospect Greening	fall	🍏			🍏	🍏			
158	Redfield	fall				🍏	🍏		sharp	
159	Redfree	summer	🍏	🍏		🍏				
160	Rhode Island Greening	fall	🍏	🍏		🍏	🍏			
161	Roxbury Russet	winter	🍏	🍏	🍏	🍏		🍏	sharp	
162	Shavel Sharp	fall							bittersharp	
164	Stark	winter	🍏		🍏	🍏				
165	Sweet Sixteen	fall		🍏	🍏	🍏	PIES	🍏		
166	Tater House	fall		🍏		🍏				
167	Tolman Sweet	fall	🍏	🍏	🍏	🍏				sweet
168	Trailman	summer		🍏				🍏		
169	Tremlett's Bitter	fall							bittersharp	
171	Wealthy	fall	🍏	🍏		🍏	🍏		sharp	
173	Wickson	fall		🍏				🍏	sharp	
174	Williams Pride	summer		🍏		🍏				
175	Windham Russet	fall		🍏				🍏		
176	Wolf River	fall				🍏	🍏			
177	Yarlington Mill	fall								bittersweet
179	Zestar	summer		🍏				🍏		



Apples *Malus* spp.

Some definitions: **Summer apples** ripen in summer, are generally crisp only for a short period, do not store well, and are often best for cooking. **Fall apples** store longer and are useful for a wide variety of purposes. **Winter apples** ripen mid to late fall, store well, and reach their best flavor after weeks, or even months, of storage. **Dessert apples** are delicious eaten raw. **Cider apples** are especially suited to making fermented "hard" cider. Some cider apples are also good dessert fruit, but most are not. See the cider sidebar on page 7 and the apple chart on the facing page for more information. **Subacid** means tart! **Russet** or **russetting** is a skin texture (fairly common on apple varieties and on a few pears and potatoes) which looks and feels somewhat like suede. **Bloom** is a naturally occurring dust-like yeast film on the skin of some varieties of apples, plums, grapes and blueberries.

Each apple variety has a **climate range** where it will thrive and produce its best fruit. At the end of each apple description we list a range of zones. For example, Z3-4 signifies that this apple will reach perfection in Zones 3 and 4 and that we don't recommend it farther south even though it would be plenty hardy. Z4-6 means that this apple will reach perfection in Zones 4, 5 or 6. Although we have received reports from southern California that some of our rarest Maine apples are thriving in Zone 10A, we still suggest you use this guide to select apples most appropriate to your area.

Choosing a variety: not every variety is right for you. **All-purpose** apples are just that—they're good for a bunch of jobs. If I were planting just one tree, I'd start there. However, if you're a history buff, consider the historical varieties and maybe plant one that originated nearby. If you don't eat many apples fresh but love pies, go for the pie apples. If you're a dessert connoisseur, skip all the others and go for the highly flavored dessert varieties. Some are strictly for cider. Some are great to put out at the camp for summer use. Some are perfect for those who want fall fruit but don't have winter storage facilities. Others keep all winter and into the following summer. Read the descriptions and consult the chart. If you have a question about a specific variety, drop me an email: john@fedcoseeds.com. I'll try to help!

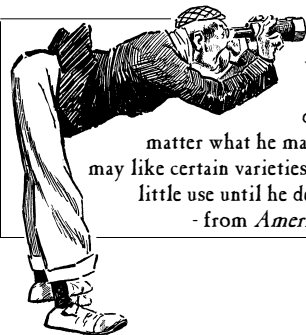
Rootstocks: This year we will once again offer most of our apples on standard Antonovka seedling rootstock. We also offer several varieties on semi-dwarf and dwarf rootstocks. See next column for more information about these "size-controlling" rootstocks and a list of available semi-dwarfs and dwarfs. Variety descriptions follow, beginning page 6.

Some people wonder why we have offered trees almost exclusively on standard (full-sized) rootstock over the years. Standard trees have deep, substantial—and therefore hardier—root systems. By selecting the varieties appropriate to your district, grafted on standard rootstock, you may well be planting a tree that will be picked by your grandchildren's grandchildren. Standard trees will grow to be large, but you can keep them trimmed. Our largest trees are now about 30 years old, yet the tallest are well under 20'.

Although standard-sized apple trees may be planted as close as 10-15' apart, they were typically planted 30' apart in 19th-c. orchards. We generally plant standard trees 20-25' apart with good results.

Apple trees are adaptable to a variety of soils and climates, though they prefer well-drained fertile soil. See pages 67-68 for information on soil preparation and planting. Varieties bearing annually are noted; others normally bear every other year. With diligent annual pruning and thinning, most apples will produce an annual crop, one heavy, the next light.

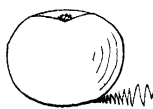
All apple trees require a second variety for pollination, but any apple or crabapple blooming at the same time, within a quarter mile, will probably do. (Stock is 3-6' trees, except Bud 9 stock is 2-5'.)



The first thing for any man to do, if he wants to plant an orchard, is to make a survey of his own town and country, investigate the different orchards, varieties, and locations, no matter what he may have seen away from home, or how well he may like certain varieties. All that he has observed elsewhere is of but little use until he determines its adaptability to his own locality.
- from *American Agriculturist*, 1872



CONICAL



ROUND



OVATE



OBULATE
FLAT



OBLONG



RIBBED

Semi-dwarf and dwarf apples

After an enthusiastic response from customers, we continue to offer an assortment of semi-dwarf and dwarf apples on Bud 118, M111 and Bud 9 rootstocks. Each has great advantages for some growers, but beware! These rootstocks also have their limitations. Please read on and decide if they are what you want. If you are uncertain, stick with the good old standards. Trees on Antonovka (standard rootstock) are extremely rugged, hardier, more tolerant of drought and poor soils, very long-lived, and more capable of thriving under a regime of benign neglect.

Bud 118 semi-dwarfing rootstock produces a tree that is about **85-90%** of standard size or even larger. Sometimes Bud 118 trees are called semi-standards or even standards. Plant about 20-25' apart. Considered to be more precocious than standards, and probably more productive. Very hardy, though not as hardy as Antonovka.

115B Cox's Orange Pippin

144B McIntosh

174B Williams Pride

M111 semi-dwarfing rootstock produces a tree that is about **65-80%** of standard size. Sometimes M111 trees are called semi-standards. You can plant them closer together than standards, about 15-20' apart. M111 may not be more precocious than trees on standard. However it will likely be more productive. It has a relatively shallow spreading root system, does well in light soils, and is relatively drought tolerant. It is less well-rooted, not as long-lived, and not as hardy as Antonovka. (See also crabapples, p. 44)

103C Ashmead's Kernel

104C Baldwin

105C Black Oxford

112C Chisel Jersey

114C Cortland

116C Dabinett

120C Esopus Spitzenburg

125C Golden Russet

129C Grimes Golden

131C Harrison

132C Harry Masters Jersey

133C Hewe's Virginia Crab

134C Honeycrisp

138C Kingston Black

139C Liberty

143C Major

144C McIntosh

150C Northern Spy

158C Redfield

161C Roxbury Russet

169C Tremlett's Bitter

173C Wickson

177C Yarlington Mill

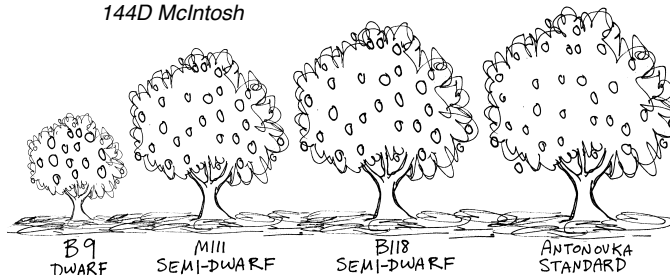
Bud 9 dwarf rootstock produces a tree that is very small. It is a true dwarf. This makes it extremely easy to spray, prune and pick. It requires way less space in your yard and will fruit at a very early age. You can plant trees 5-10' apart. On the other hand, it will not live nearly as long as those grafted onto Antonovka. It will be less well-rooted, more susceptible to drought and have more difficulty accessing soil nutrients. Trees should be staked for support. Hardy, but not nearly as hardy as Antonovka. All varieties on Bud 9 rootstock are 2-5' trees.

105D Black Oxford

134D Honeycrisp

139D Liberty

144D McIntosh



Some one has observed that apple lovers are usually people with healthy livers and therefore very amiable. An old proverb says: "It will beggar a doctor to live where orchards thrive."
- *Agriculture of Maine*, 1892

Rootstocks

We offer most apple varieties on standard-sized Antonovka rootstock. Where A follows the item number in the apple section, the variety is on standard rootstock.

B indicates the variety is on Bud 118 rootstock,

C indicates M111, and

D is Bud 9.

For more about rootstock, see pages 5 and 16.

Amber Crab Fall. Seth Yentes intro, Monroe, ME, 2015. Wild seedling discovered by brothers Mark and Jonathan Fulford about 30 years ago in Monroe. The small 2" fruit is long-stemmed, red-striped and blushed, resembling Chestnut Crab. Not of fresh-eating quality, but may be of great interest to cidermakers. Extremely high in sugar: specific gravity (SG) 1.066. Jonathan's stepson Seth Yentes, who has been grafting it in recent years, uses it to make *amber-colored* cider. He says there's nothing like it. On trial in our test orchard. Healthy vigorous tree. Z4-7. **ME Grown.**

101A *Amber Crab*, \$29.25

Ashmead's Kernel Winter. Unknown parentage. Gloucester, England, about 1700. Possibly a seedling of Nonpareil. An after-dinner apple of unparalleled quality. Not

for those who like mild sweet apples. Each bite is an intense aromatic sting of sharp and sweet, with hints of other indescribable but absolutely wonderful tastes and aftertastes. Beginning to show up here and there in commercial orchards. A good sharp addition to hard cider. Medium-small oblate and lopsided orange-gold-green russet fruits ripen in October. Store until New Year to reach perfection. Keeps until they're all gone. Moderately vigorous tree may bear irregularly, but it's worth the wait. Somewhat scab resistant. Blooms midseason. Z4-7. Both **ME Grown.**

103A *Ashmead's Kernel*, \$29.25

103C *Ashmead's Kernel* on M111, \$29.25

Baldwin Winter. Wilmington, MA, about 1740. Also called **Butters Apple** or **Woodpecker**. Discovered on the Butters Farm by a surveyor planning the Middlesex Canal and noted as a favorite site for local woodpeckers. By 1850 Baldwin was the standard all-purpose home and commercial variety wherever it was grown. It remained dominant in Maine until the terrible winter of 1934 when tens of thousands of trees perished and McIntosh became king. Large round-conic thick-skinned fruit, almost entirely blushed, mottled and striped with red and deep carmine. Hard crisp juicy yellowish flesh makes excellent eating and cooking. Keeps till spring. Makes top-quality hard cider, blended or alone. Vigorous adaptable hugely productive long-lived healthy tree. When grower Dave Gott asked the late renowned entomologist Ron Prokopy his opinion of Baldwin, Ron replied that the apple is "not practical commercially due to biennialism but the *only* apple that is both disease and insect resistant." Blooms early to midseason. Z4-6. Both **ME Grown.**

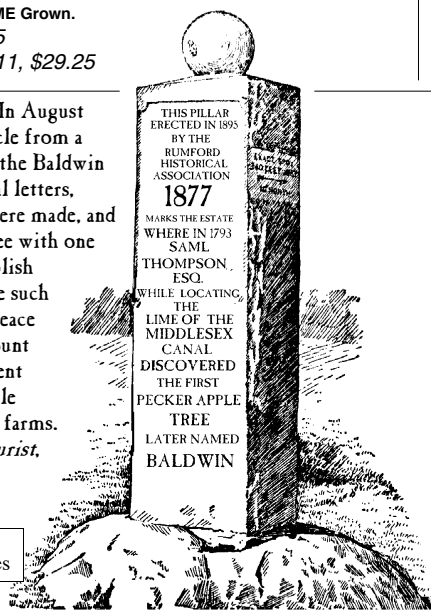
104A *Baldwin*, \$29.25

104C *Baldwin* on M111, \$29.25

THE BALDWIN APPLE In August last we published a gossip article from a well-known literary lady, upon the Baldwin apple. This has called out several letters, controverting the statements there made, and as these letters do not at all agree with one another, we must decline to publish them. We have not space to give such controversies. For the sake of peace we are willing to admit that Count Rumford was born in six different places, and that the Baldwin apple originated on as many different farms.

- from *American Agriculturist*, October 1872

ME Grown = grown in Maine at one of our small local nurseries



Black Oxford Winter. Unknown parentage. Paris, Oxford County, ME, about 1790. This outstanding apple, a favorite long ago around much of Maine, has been making a huge comeback in the last 20 years. Our best seller until Honeycrisp came along. Medium-sized round fruit, deep purple with a blackish bloom. From a distance you might think you'd discovered a huge plum tree. Excellent pies, superb late cider. Leave the skins on for a delightful pink sauce. Best eating late December to March. They get sweeter and sweeter as the months go by. Good cooking until early summer. Some insect and disease resistance. Unusual light pink blooms early to midseason. Z4-5. All are **ME Grown.**

105A *Black Oxford*, \$29.25

105C *Black Oxford* on M111, \$29.25

105D *Black Oxford* on Bud 9, \$29.25

Blake Fall. Unknown parentage. Westbrook, ME, before 1869. Extremely rare. Medium-large roundish-conic-oblate hard yellow-green cooking and dessert apple with a crowned basin, sometimes a faint blush and a dab of russet around the stem. Citrusy, very tart, almost bitter. Medium juicy, dense and quite good. Keeps until just after New Year. Mentioned in Downing's classic *Fruits and Fruit Trees of America* but practically no other references exist. We're currently scouring the Cumberland County area west of Portland for additional specimens with the help of fellow fruit-explorer David Buchanan and others. If you'd like to help with the search, or if you might have any information leading to the apprehension of said Blake, please contact Fedco. Blooms early to midseason. Z4-6. **ME Grown.**

106A *Blake*, \$29.25

Blue Pearmain Fall-Winter. Thought to be from Middlesex County, MA, 1700s. One of New England's most famous varieties. Mentioned by Henry David Thoreau as a favorite in his wonderful essay "Wild Apples." Incredibly beautiful medium to very large fruit is streaked and splashed with purplish red, mottled with russet and covered with a distinct blue bloom. Fairly dry flesh, firm, dense and slightly crisp, sweet with a bit of a tart background flavor. Tasty eaten out of hand. Our favorite for baked apples. It was made to be stuffed and baked. In a pie, it has just enough firmness and a good balance of sweet and tart with hints of pear. Tart coarse yellow sauce cooks up in a couple minutes. Grown throughout much of Maine for well over 200 years, and still found here and there. Keeps in the root cellar until midwinter. Blooms midseason. Z4-6. **ME Grown.**

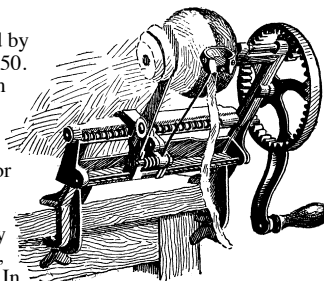
107A *Blue Pearmain*, \$29.25

Briggs Auburn Fall-Winter. Introduced by John C. Briggs of Auburn, ME, before 1850.

Large round-oblate clear-yellow fruit with glowing greenish shading and a slight blush. All-purpose apple with bright well-balanced flavor, including hints of banana and blackberry, and chewy skin for superior fresh eating well into winter.

Top-notch cooking. Highly aromatic when you peel it. Produces a thick creamy golden-yellow medium-sweet applesauce, no sugar necessary. Excellent in oatmeal. In a pie the slices lose their shape but the crust won't sink and pie doesn't get watery. Ripens in late fall and keeps all winter. Recently we've suspected that Briggs' Auburn may have been called **Naked Limbed Greening** in Waldo County where our scionwood comes from. Z4-6. **ME Grown.**

108A *Briggs Auburn*, \$29.25



Hardiness zone range and relative ripening dates

Although our catalog focuses on woody plants that do well in the northeast, we have customers all over the U.S.—up along the Canadian border, in the mid-Atlantic states, down in the mountains of North Carolina and out west in the high desert—anywhere hardiness is important. We love having customers so spread out, and we do our best to tell you when a variety will ripen in your orchard. But it's not easy. An apple that ripens in September in northern Maine might ripen a month earlier in Pennsylvania. Ripening dates also vary from year to year depending on conditions. Not only that, the apple might be exquisite up north but rather blah farther south. That's the nature of these varieties, and it's part of why we offer so many each year. We think you'll find varieties that can thrive in your area.

At the end of each apple description is a zone range. Z3-5 means this particular apple will do best in the USDA hardiness Zones 3, 4 and 5. It might do fine in Zone 2 or 6, but it should be at its peak in Zones 3-5. We hope to give you a good sense of when a variety will ripen, but please bear in mind that it might be different out your way.



Calville Blanc d'Hiver Winter.

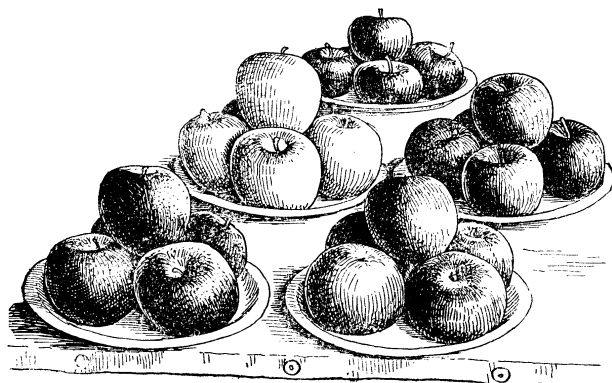
Unknown parentage. France or Germany, 16th c. Also called **White Winter Calville**. Famous as a dessert and cooking apple for more than 400 years. Steve Wood of Poverty Lane Orchards in Lebanon, NH, called it "the best culinary apple in the world."

Large flattish pale green-yellow fruit with deep ribs and a dotted orange-red blush. Creamy-white aromatic fine-grained juicy flesh with a sweet distinctive effervescent flavor. Also recommended for vinegar, fresh cider and as a sharp (acid) component in fermented cider. Should be stored a month to reach peak flavor. Will keep until midwinter. Very vigorous strongly upright vase-shaped tree with good branch angles. Not for coldest areas though certainly hardy to Zone 4. Blooms midseason. Z4-7. **ME Grown.**

109A Calville Blanc d'Hiver, \$29.25

Canadian Strawberry Fall. Unknown parentage. Solon, ME. Beautiful superb-tasting dessert apple. Surprisingly juicy distinctly tart full-flavored medium-to-large round-conic fruit. Rich buttery-yellow skin overspread with a veil of vibrant red-orange. Very good early season cider. Perfectly ripe at the end of September in central Maine where, in a good year, you won't find a better apple. At our Common Ground Fair taste tests, it usually vies for the crown with Cox's Orange Pippin. It was a split decision in 2015. In 1996 the late Roy Slamm convinced me to visit and subsequently propagate nursery stock from the three ancient "Strawberry" trees on his South Solon farm, thus saving the apple from almost certain extinction. Now spreading throughout Fedcoland. Fruit keeps about a month. Blooms midseason. Not to be confused with Chenango Strawberry. Z4-5. **ME Grown.**

110A Canadian Strawberry, \$29.25



Apple Collections

Each collection chosen by Fedco's John Bunker and may include varieties not listed in this catalog. Rootstocks will be **semi-dwarf and standard**. Trees are individually labeled within each bundle.

Hard Cider Apple Collection A bundle of 5 trees to begin your cider orchard. Contains 2-3 sharps or bittersharps, and 2-3 bittersweets. Includes 5 different varieties. **ME Grown.**

201A Hard Cider Apple Collection, bundle of 5, \$135.00

Hard Cider Apple Bittersweet Collection A bundle of 10 bittersweet trees to begin your cider orchard. Includes at least 3 different bittersweet varieties. **ME Grown.**

202A Bittersweet Collection, bundle of 10, \$260.00

Hard Cider Apple Bittersweet Collection A bundle of 25 bittersweet trees to begin your cider orchard. Includes at least 3 different bittersweet varieties. Note that purchasing one of these bundles will give you an additional 15% discount. See the order sheet for details. **ME Grown.**

203A Bittersweet Collection, bundle of 25, \$625.00

Heritage Apple Collection A bundle of 5 trees to begin your own heritage orchard. Includes 5 different heirlooms traditionally grown in northern New England. **ME Grown.**

204A Heritage Apple Collection, bundle of 5, \$135.00

Heritage Apple Collection A bundle of 10 trees for your heritage orchard. Includes 10 different heirlooms traditionally grown in northern New England. **ME Grown.**

205A Heritage Apple Collection, bundle of 10, \$260.00

Cider Apples

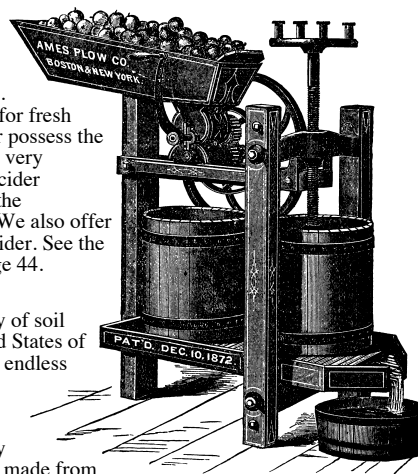
Cider Apples

Each year we offer a different assortment of the best European and American cider varieties.

Many of these are NOT for fresh eating. They do however possess the qualities that make them very desirable for **fermented** cider production. Please note the descriptions for details. We also offer crabapples suitable for cider. See the crabapple section on page 44.

It's All in the Mix!

"From the great diversity of soil and climate in the United States of America, and the almost endless variety of its apples, it followed that much diversity of taste and flavor will be necessarily found in the cider that is made from them." – Colin MacKenzie, 1829.



For the best cider, plant several varieties. That's because when it comes to cider, it's all in the mix. Unlike beer, cider has only one ingredient: apples. So the apples have to provide everything: acidity, sugar, tannin and flavor.

We classify the cider varieties into four categories: **sharp** (low in tannins, high in acid), **sweet** (high in sugar, little or no tannin, low acid), **bittersharp** (high in tannins and high acid) and **bittersweet** (high tannins and sugar, low acid). **Tannin** denotes naturally occurring compounds whose bitter astringency gives rounded full flavor, body and golden color. Is there a difference between **bitterness** and **astringency**? An excellent 2012 University of Reading (England) publication titled *Sustainable Cider Apple Production* attempts to define them: "Astringency is a drying, puckering sensation in the mouth in which the whole tongue is affected, while bitterness is mostly perceived at the sides and back of the tongue."

Vintage refers to varieties with the perfect qualities for cider.

We recommend you plant some sharp apples for acidity, some sweet apples for sugar and some bitter apples for the tannin. See the chart on p. 4 for suggestions. Our best cider has been from about 40% bittersweet (astringent) apples and 60% mixed dessert and cooking apples.

Cider Reading

Three good basic books are *Cider, Hard and Sweet: History, Traditions, and Making Your Own* by Ben Watson; *Cider: Making, Using and Enjoying Sweet and Hard Cider* by Annie Proulx and Lew Nichols; and *Apples to Cider: How to Make Cider at Home* by April White with Steve Wood. *The New Cidermaker's Handbook: A Comprehensive Guide for Craft Producers* by Claude Jolicoeur takes cidermaking to a more advanced level.

If you're considering a trip to the cider orchards of England or France, or just want to know more about regional ciders, try *Ciderland* by James Crowden (English cider) and *Calvados: The Spirit of Normandy* by Charles Neal (French cider). The best book on English cider varieties is *Cider Apples: The New Pomona* by Liz Copas. For French cider varieties, the best is *Pommiers à cidre: variétés de France* by JM Boré and J Fleckinger (in French only).

Commercial Cider Orchards

For those planting large quantities of cider apples, please be in touch about special pricing.

For the ultimate cider experience join us at the 22nd annual CiderDays festival in Franklin County, MA, on November 5-6, 2016. A weekend of workshops, panels, orchard tours, tastings, dinners and everything cider. If you are into apples and cider, it is just the thing for you. Join Fedco's John Bunker and cider enthusiasts and celebrities from all over the U.S. and Canada for an educational—and very fun—weekend.



Charette Fall. Also called **The Donut Apple**. Unknown parentage. May have originated in Fort Kent, ME, although Aroostook fruit-explorer Garfield King speculated that it came down from Quebec 200 years ago with French missionaries. The only known mature tree is a gigantic specimen on Charette Hill in Fort Kent. Very large Wolf River-size oblate fruit, mostly covered with stripes and splashes of pink and bright red. Surprisingly good fresh eating for such a large apple. Wonderful balance of flavors in a pie. Aromatic. Holds shape well and requires no lemon. Makes a light pink chunky sauce that's tart and spicy but not sour. No need to peel or add sugar. Baked tastes like bananas flambé—you can spoon it out or eat it skin and all. Excellent sliced and lightly sautéed in butter although they lose shape if cooked too long. Also good for drying. Ripens around the end of September. Keeps a few weeks. Extremely hardy. Z3-5. **ME Grown**.

111A Charette, \$29.25

Chisel Jersey Late Fall. Full bittersweet cider apple.

Martock, Somerset, England, 19th c. One of the most famous of the Somerset bittersweets. Makes a strong rich cider. Best for blending. Medium acidity, highly astringent, harsh and high in tannins. (SG 1.059, acidity 2.2g/L, tannin 4g/L) Round to slightly conic slightly greasy fruit, colored with a beautiful combination of dull opaque reds, yellows and russets. In old English *chesil* means 'pebble'—Chisel Jersey is small, hard and bitter! Spreading tree may require encouragement to develop a strong central leader. Consistent cropper. Closely related to Dabinett; they should not be relied upon to pollinate one another. One source recommends Harry Masters Jersey as a good companion in that regard. Late bloomer. Z4-6. **ME Grown**.

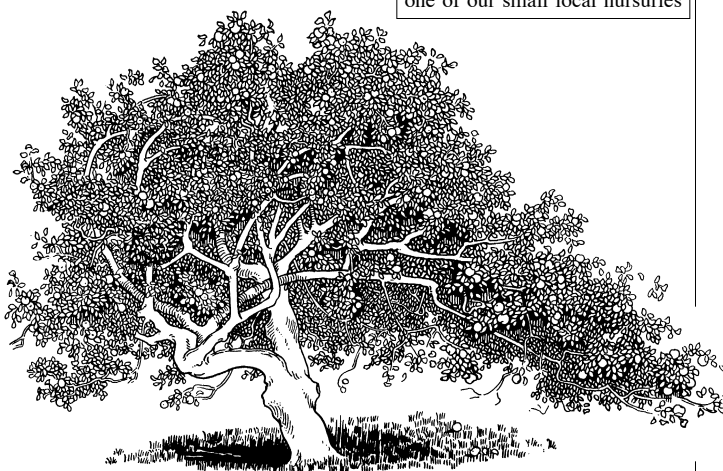
112C Chisel Jersey on M111, \$29.25

Cortland Fall-Winter. (Ben Davis x McIntosh) NY Stn, 1915. Although never as important as McIntosh, Cortland remains very popular throughout northern New England even in this era of many new introductions. Medium-large slightly ribbed dull red fruit with a purple blush. Excellent eating and cooking. Slow-oxidizing white flesh is very good in salads; fine-grained, crisp, tender, juicy. Produces a surprisingly delightful cider, fresh or fermented, in a mix or even on its own. Vigorous tall upright spreading tree. Annual producer of heavy crops. A recent U Mass study showed resistance to apple maggot fly. Bears young; remove fruit for the first year or two to avoid stunting growth. Susceptible to scab. Blooms midseason. Z4-5. Both **ME Grown**.

114A Cortland, \$29.25

114C Cortland on M111, \$29.25

ME Grown = grown in Maine at one of our small local nurseries



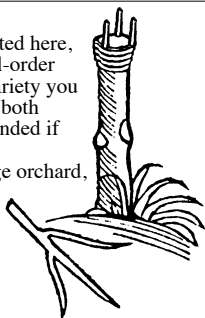
Special Orders and Custom Grafting

Small orders: If you are looking for a variety not listed here, we may have it in one of our nurseries. These special-order trees cost \$35 each. If we don't currently have the variety you seek, we can custom graft it for you for \$50 each. In both cases, payment up front is required. You will be refunded if we are unsuccessful in acquiring the tree.

Large orders: If you are interested in planting a large orchard, we would be happy to custom graft the varieties you want onto the rootstock of your choice.

For details: Please write, call or send an email to trees@fedcoseeds.com.

We'd be pleased to work with you as you plan your orchard.



Cox's Orange Pippin Fall. Possibly a seedling of Ribston Pippin. Near Slough, Bucks, England, around 1825. Deservedly one of the three or four most famous of all apples. Not only one of the best eating apples ever but also one of the most sought-after in modern apple breeding; parent or grandparent of many other varieties. Revered in the U.K. Medium-sized all-purpose aromatic fruit is red-orange to red with orange russet striping and wash. Perfectly balanced slightly subacid flavor and crisp juicy tender flesh improve with storage. Moderately vigorous moderately productive tree bears young and annually. Prefers cooler climates and higher pH (6.5-7.5+). The oldest Maine Cox's I know is about 40 years old, thriving in Mercer, Zone 4. Scab resistant. Blooms midseason. Z4-6. Both **ME Grown**.

115A Cox's Orange Pippin, \$29.25

115B Cox's Orange Pippin on B118, \$29.25

Dabinett Late Fall. Medium-bittersweet cider apple. Probably a seedling of Chisel Jersey. Middle Lambrook, Somerset, England. (SG 1.057, acidity 1.8g/L, tannin 2.9g/L) One of the most popular cider varieties in Somerset today and one of the mainstays of Poverty Lane Cider Orchards. At a MOFGA workshop, Steve Wood of Poverty Lane and Farnum Hill Ciders said, "If you're going to plant one bittersweet, plant this one." Medium-sized roundish fruit covered with brownish brick-red stripes and blush.

Sugar content fair and fermentation moderate. High-quality well-balanced low-acid cider with a soft-tasting tannin.

Picked last week of October, usually blended with other late varieties. Crops annually. Grower-friendly tree with a spreading drooping habit may require help in developing a strong central leader. Not pollen compatible with Chisel Jersey. Midseason bloom. Z4-6. **ME Grown**.

116C Dabinett on M111, \$29.25

Don Johnson: A Tribute

There was a noticeable absence at MOFGA's annual Scionwood Exchange last March. Yes, the Exhibition Hall was packed, long tables covered with piles of free scionwood for grafting, not to mention seeds for dozens of flowers, herbs and vegetables. But one of the fixtures of Maine's vibrant small-scale apple community was missing.

All morning I looked for Don with his coolers of scions, perfectly cut and labelled, and the apple diehards gathered around him. I knew it wasn't the weather—it was cold, clear, and the roads were fine. Then I saw Ralph Elwell, Don's long-time neighbor and friend, who taught Don to graft many years ago. He told me Don was in the hospital. He passed away the next day.

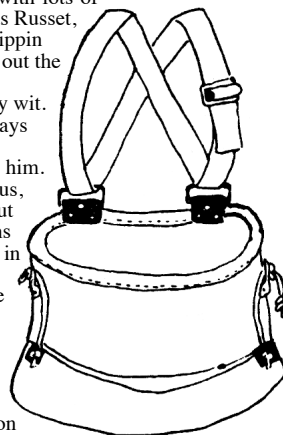
Don W. Johnson was born in 1940 in Vermont. He and Barb raised their two sons in an unassuming ranch house on a quiet shady road in Hermon, not far from Bangor. Don taught Spanish and chemistry at Bangor High School. Somewhere along the way, Ralph infected him with the apple-grafting bug. Don began to propagate and plant fruit trees until his backyard, about an acre, was filled with a wide assortment of apples, plums and pears.

The trees liked Don's site and began to bear. He bought a small sprayer and experimented with neem oil even before Fedco offered it. He invented plywood traps for additional insect control. Over time he assembled a unique collection of modern and heirloom varieties, many of them quite rare in Maine. When it came time to decide what to do with all that fruit, he built a cider press out of 2x4s and made a grinder out of a garbage disposal. He and Barb processed all they could, but they still had more. Lots more. He gave fruit to friends, to folks at church and at MOFGA. Barb gave away apples at her school.

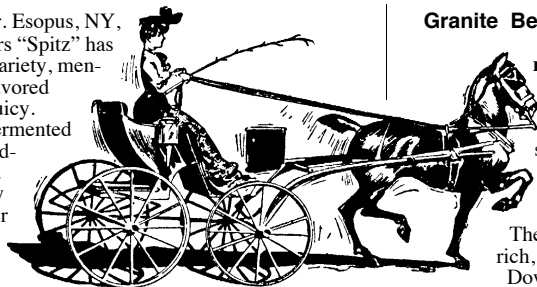
I met Don at the Common Ground Fair, at one of Fedco's apple tastings, where we dice up apples and pass them out to the assembled crowd. It's a popular event. We sample 10 or 12 varieties each tasting. One year Don appeared at the Fedco tent with a few buckets of apples, which we decided to include in the next tasting. They were a hit. So was Don. After that he came every year, always with lots of apples to share—Burgundy, St. Edmunds Russet, Chestnut Crab, Jefferis, Cox's Orange Pippin and others. After the tastings, he'd hand out the leftovers to the crowd.

Don had a quiet demeanor and a dry wit. He was not a flashy guy, but he was always up for joining the conversation. He was observant and people learned to listen to him. He introduced new varieties to many of us, including me. He seemed to pull them out of nowhere. I'd visit him to collect scions in the winter and apples for our displays in the fall. His apples have spread throughout Maine. Many of the selections we've offered in the Fedco catalog are because of him.

Barb will be moving to join relatives farther south, and their small farm is for sale. We hope the future owner will tend the fantastic orchard. Don was loved and will be missed. Thank you, Don.



Esopus Spitzenburg Fall-Winter. Esopus, NY, before 1776. For more than 200 years "Spitz" has been a choice dessert and culinary variety, mentioned in nearly every list of best-flavored apples. Slightly subacid, crisp and juicy. Excellent acid source for sweet or fermented cider. Medium-large bright red round-conic fruit, covered with russet dots. Moderately vigorous tree with easily trained wide-angle branches. Forever famous as Thomas Jefferson's favorite apple though it vastly prefers New York and New England to Virginia. Moderately susceptible to scab though we have never sprayed ours with fungicides and the fruit has been great. Blooms mid-late season. Z4-7.



120A *Esopus Spitzenburg*, \$29.25 ME Grown.

120C *Esopus Spitzenburg* on M111, \$29.25

Freedom Early Fall. [NY 18492 (Macoun x Antonovka)] x NY 49821-46 [Golden Delicious x F2 26829-2-2 ((Rome x *M. floribunda* 821) x (Rome x *M. floribunda* 821))] NY Stn, 1983. Very high-quality and highly disease-resistant all-purpose apple ripens in early October and keeps until New Year. Large roundish fruit almost entirely covered with bright red stripes. Juicy firm spicy flesh. Recommended for fresh eating, sauce and juice. We still haven't tried it in a pie. This precocious tree is vigorous, spreading, spur-forming, productive and annually bearing. From the same breeding program that developed Liberty. Some growers like it better than Liberty. Cross made in 1958, tested for nearly 25 years before release and considered immune to scab and highly resistant to powdery mildew, cedar apple rust and fire blight. Recommended as a pollinator for other varieties. Blooms midseason. Z4-7. ME Grown.

123A *Freedom*, \$29.25



Frostbite Fall-Winter. MN 447. Unknown parentage. U Minn, 2007. Seed planted at the University of Minnesota before 1936, but unnamed until 2008. This massively flavored dessert apple—not for the faint of heart—provides a whole new level of culinary experience. The roundish fruit is medium-sized and dark bluish-purple. The aromatic crisp crystalline flesh is an apricot-orange color with occasional red staining. So juicy it'll run down your hand. Likely the most distinctive and unusual apple we've ever tried. Described as tasting like molasses or even sugar cane. The fall dessert apple that we most look forward to on our farm. We love it! Extremely hardy, productive and reliable. Not recommended for warmer districts. Blooms early-midseason. Z3-6. ME Grown.

124A *Frostbite*, \$29.25

Golden Russet Winter. Uncertain origin. Thought to be from England, New York or New England, before 1800. Round medium-sized russet fruit. The champagne of cider apples, ripening late in fall when the best sweet cider is ready to be made: sweet, balanced, thick and smooth. Also recommended as a sharp component for fermented cider. Excellent eating; keeps all winter and well into spring. One of the best apples dried. For more than 100 years, orchardists have been attempting to sort out the various russets. Several different apples have been called Golden Russet. Most resemble one another visually but differ in fruit qualities and tree habits. This is most likely the Golden Russet of Western New York. Vigorous diverging upcurving tree with long willowy branches. Scab resistant. Blooms early to midseason. Z4-6. Both ME Grown.

125A *Golden Russet*, \$29.25

125C *Golden Russet* on M111, \$29.25

Granite Beauty Winter. Unknown parentage. Zephaniah Breed intro, Weare, NH, before 1850. Also called **Aunt Dorcas**, **Grandmother**, **Clothesyard Apple** and maybe a few more. Very large roundish-oblate red fruit ripens in late October and keeps well into spring. Most years, we still eat them in early May.

Moderately juicy, firm but not crisp, slightly subacid, surprisingly good. Writer and Chelsea Green editor Ben Watson of New Hampshire who is leading the effort to revive the variety loves the "cardamom, coriander, warm spice" flavor.

The fruit cooks down quickly into a loose pink delicious sauce. The skins mostly dissolve. An old source adds that "it abounds in a rich, refreshing, and well flavored juice." The story goes that Dorcas Dow yanked up a young apple tree to use as a whip on a long horse ride. When she arrived home, the little tree was still looking pretty good so she planted it. Once well known throughout New Hampshire and midcoast Maine. Probably blooms midseason. Z4-6. ME Grown.

126A *Granite Beauty*, \$29.25

Gravenstein Late Summer. Thought to be of 17th-c. Italian or German origin. Brought to the U.S. in the early 19th c. By 1880 it was the most popular summer apple in Maine. Fruit is medium to large, irregularly round, asymmetrical, usually ribbed. Thin tender skin, striped with yellow, red and orange. Tender crisp aromatic richly flavored juicy firm tart flesh. Outstanding eating and cooking. Rated "very good to best" by Beach in *The Apples of New York*. Probably the most famous of all summer apples and usually considered the best of all pie apples. Still commonly grown in Nova Scotia, northern California, Oregon and Washington. Large vigorous productive tree with a nearly perfect wide-angle branching habit that requires practically no training. Ripens over several weeks. Too tender for colder areas of New England. Blooms early. Triploid: not suitable for pollinating other varieties. Z4-7. ME Grown.

127A *Gravenstein*, \$29.25

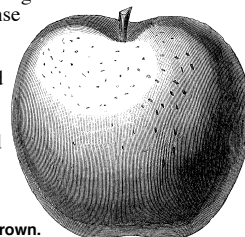
Gray Pearmain Fall-Winter. Probably Skowhegan, ME, before 1870. Absolutely delicious dessert (fresh eating) apple with a distinct pear flavor and firm white juicy mildly tart flesh. Steadily gaining a devoted following. Medium-sized slightly ribbed and muffin-shaped fruit has a soft opaque greenish-yellow skin with a rosy pink blush, a russet veil, and a greyish bloom. Produces excellent juice. Pick late and eat them in the fall and all winter. Until recently the only trees we knew of were at The Apple Farm in Fairfield, across the line from Skowhegan. Through the generosity of the Meyerhans, the Gray Pearmain is now being grown throughout Maine and beyond. Annually bearing easy-to-grow medium-sized spreading tree. Blooms midseason. Z4-6. ME Grown.

128A *Gray Pearmain*, \$29.25

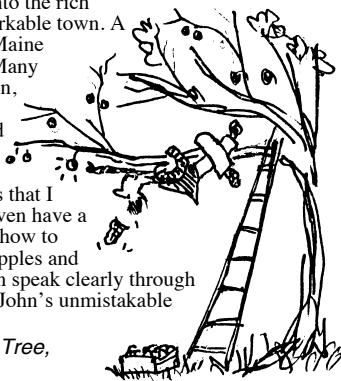
Grimes Golden Fall. Unknown parentage. West Virginia, c. 1804. All-around excellent variety grown in old Maine orchards for more than 100 years. Medium-sized roundish fruit with opaque yellow skin scattered with grey russet dots and an occasional faint blush. Thought to be a parent of Golden Delicious. Tart citrusy crisp dense firm fruit is excellent for dessert and cooking: wonderful spicy fresh eating and splendid applesauce. Makes a thick sweet cider and a good single-variety hard cider: light and fruity. In Central Maine they begin to ripen and drop in mid-October. We collect them off the ground and use them up. Around November 1 we pick the bulk of the crop and store them in the root cellar until spring. Productive precocious tree bears annually. Highly recommended. Z4-6. Both ME Grown.

129A *Grimes Golden*, \$29.25

129C *Grimes Golden* on M111, \$29.25



Not Far from the Tree: A Brief History of the Apples and the Orchards of Palermo, Maine, 1804-2004 by John Bunker, 200 pages, 8 1/2 x 11, softcover. John reveals how he came to know so much about apples—he spent years talking to his neighbors in Palermo, listening to their stories and walking their fields and orchards learning the varieties, how they came to be planted there and why. His engaging narrative and entertaining and informative drawings take us into the rich diverse past of a seemingly unremarkable town. A wonderful lesson in the history of Maine agriculture told in the apple trees. Many long abandoned and all but forgotten, some nursed back to health, and some finding new life as scionwood that begets generations of apple trees from Fedco. John is a colleague and a friend and I confess that I am not a disinterested reviewer. I even have a tiny part in his story—I taught him how to make an apple pie. John's love of apples and affection for his neighbors and town speak clearly through each page. Copiously illustrated in John's unmistakable style. —David Shipman



L657A *Not Far from the Tree*, \$22.00

We will donate \$5 from the sale of each book to the Palermo Historical Society.

Harmon Late Fall. J.H. Harmon intro, Buxton, ME, about 1880. Medium-sized dark purple-black fall dessert apple typically ripens on Oct. 5 in central Maine. High-quality fruit has subtle mild sweetness, hints of grape and a light grassy aftertaste. Not very tart. Originated just outside Portland. At a glance, you could confuse Harmon with the winter apple Black Oxford. Both are dark purple-red with almost no stripes. Note that Harmon has white or grey dots, and Black Oxford has pinkish russet and dots, especially around the stem. Harmon's blossoms are white, while Black Oxford's are pink. Brought to me many years ago by Don Essman of Standish, not far from Buxton. He called it Davis Purple. We finally identified it as Harmon a few years ago. Bloom midseason. Z4-7. **ME Grown.**

130A Harmon, \$29.25



Harrison Mid-Late Fall. Vintage cider apple. Unknown parentage. South Orange, Essex County, NJ, as early as 1712. One of the most renowned American cider apples, dating from the early days of domestic cidemaking. Harrison cider was famous and considered to be better than champagne. Medium-small oval yellow-skinned fruit. Rich firm dry yellow flesh. According to William Cox in 1817, it makes a "high coloured, rich, and sweet cider of great strength, commanding a high price in New-York, frequently ten dollars and upwards per barrel." Vigorous productive tree. A Harrison revival is underway in several locations on the East Coast. Performing well in our central-Maine trials. Appears to be plenty hardy. Z4-8. Both **ME Grown.**

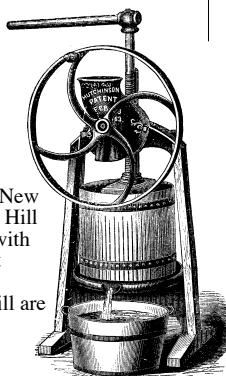
131A Harrison, \$29.25

131C Harrison on M111, \$29.25

Harry Masters Jersey Fall. Medium-full bittersweet cider apple. Often called **Port Wine** in north Somerset. Probably introduced by Harry Masters, Yarlington Mill, Woolston, Somerset, England, before 1900. High-quality bittersweet variety recommended for blending with other fall varieties. Soft astringent tannin. (SG 1.056, acidity 2g/L, tannin 3.2g/L) Becoming popular commercially in New England in recent years. One of the mainstays of Farnum Hill Cider. Medium-large oblate-conic fruit, mostly covered with bright red stripes and blush, and a splash of yellow russet around the stem. Harry Masters himself was the miller at Yarlington Mill. Harry Masters Jersey and Yarlington Mill are thought to be of the same parentage. Blooms midseason. Z4-7. Both **ME Grown.**

132A Harry Masters Jersey, \$29.25

132C Harry Masters Jersey on M111, \$29.25



Hewe's Virginia Crab Fall. Possibly a seedling of the native *M. coronaria* var. *angustifolia*. Probably Virginia about 1700. One of the most prized of all American cider apples. So important was the apple that in his 1817 *A View of the Cultivation of Fruit Trees*, William Cox devoted an entire chapter to making cider with Hewe's. The red-skinned white-spotted fruit is small, round, juicy, tough, astringent and acidic. According to AJ Downing in 1848, Hewe's "makes a very high flavoured high dry cider, which, by connoisseurs, is thought unsurpassed in flavour by any other." The fruit is small—you may want to plant several! Quite hardy despite its name. Long ago used as a rootstock even as far north as Maine. Blooms midseason. Z4-8. **ME Grown.**

133C Hewe's Virginia Crab on M111, \$29.25

Honeycrisp Winter. MN 1711 (Keepsake x open-pollinated) U Minn, 1991. Medium-large fruit, mottled and striped red over yellow. Sweet and juicy with hard snapping-crisp texture. Top quality in September. Improves steadily in storage. Unusual because it ripens in early fall yet keeps up to seven months in the root cellar. First of the many excellent University of Minnesota introductions to receive large-scale commercial attention, now has a huge following. Our best-selling apple. Probably best planted north of Massachusetts; less suited to warmer districts. Tends towards annual bearing. Relatively small low-vigor upright spreading tree. Above-average scab resistance. Blooms mid-late season. Z3-4. All are **ME Grown.**

134A Honeycrisp, \$29.25

134C Honeycrisp on M111, \$29.25

134D Honeycrisp on Bud 9, \$29.25

ME Grown = grown in Maine at one of our small local nurseries

Hudson's Golden Gem Fall. Tangent, OR, 1931. Discovered in a fence row and introduced soon afterward by A.D. Hudson's Wholesale Nurseries. This is a truly fine dessert fruit of unique appearance and exceptional flavor. Magnificent medium-to-large distinctly conical russeted long-stemmed fruit. Skin a soft yellow-tan overlaid with a fine weave of light and dark browns. Sweet juicy crisp smooth firm-but-melting yellow pear-like flesh. A local favorite in Oregon, more recently gaining notice practically everywhere apples are grown. Popularized in Maine through the efforts of Mark Fulford. Stores several months. Productive annual-bearing scab-resistant tree. Also resists powdery mildew and fireblight. Blooms mid-late. Z4-9. **ME Grown.**

135A Hudson's Golden Gem, \$29.25

Kavanagh Fall. Unknown parentage. James Kavanagh intro, Damariscotta Mills, ME, 1790. This unforgettable large apple is sometimes called **Cathead** because of its distinctive shape: a large stem end tapering to a small blossom end, typical of some Irish varieties. About half russet and half deep rich lime green. Slightly yellow flesh is mild, moderately crisp, moderately tart and subtle. Good fall and early winter eating, excellent for cooking and drying. Even frying. Foams up quickly into a wonderful creamy sauce, no need to remove the skins. Popular ages ago along the Maine coastal peninsulas, anywhere a schooner could land. Featured last year in an extensive *Maine Sunday Telegram* article. Finally making its comeback! Blooms late. Z4-6. **ME Grown.**

136A Kavanagh, \$29.25

King of Tompkins County Fall. Unknown parentage. Washington, NJ, before 1800. Also called **King** or **Tompkins King**. We recommend this large juicy fruit for sweet eating right off the tree in October as well as to fill the sauce pot or the home cider press. Even the experts and apple snobs never pass up King in October.

Round-to-oblate blocky lumpy fruit, almost entirely overlaid with dark orange-red stripes and blush. Crisp yellow flesh, tender, coarse with balanced flavor. Keeps until January. I'm convinced that one of the reasons they named it King is its incredible vigor and productivity. The young grafted trees outgrow all others.

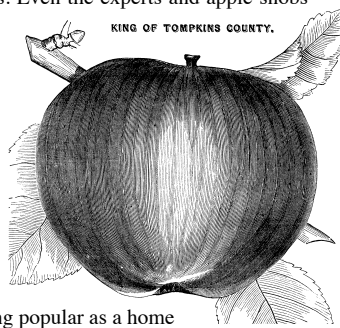
When I topworked a wild tree at our place a few years ago, it grew 4' the first year! Gained recognition in New York's Tompkins County and later spread all over the Northeast becoming popular as a home and commercial variety in the 19th c. Old trees still found here and there in Maine. Annually bears. Blooms midseason. Z4-7. **ME Grown.**

137A King of Tompkins County, \$29.25

Kingston Black Fall. Bittersweet cider apple. Unknown parentage. Somerset, England, early 19th c. High in tannin and acidity. (SG 1.061, acidity 5.8g/L, tannin 1.9g/L) Produces full-bodied vintage cider with a nice blend of acid, tannins and sugar. One of the few varieties that makes a high-quality *single variety* hard cider, also good in a blend. We've become fans of Farnum Hill's tasty Kingston Black varietal. Now we make it ourselves. Also makes superb fresh cider. Even the fresh juice is a deep rich dark color. Medium-sized conical beautiful rich red fruit is mottled with red russet and deeper shades of maroon. Fairly decent fresh eating. The tree is a reliable bearer, but is gangly and needs careful pruning. Blooms midseason. Z4-6. Both **ME Grown.**

138A Kingston Black, \$29.25

138C Kingston Black on M111, \$29.25

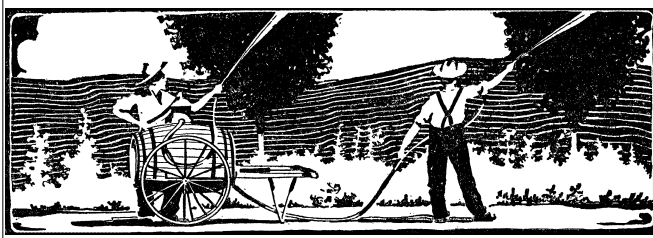


Scab and Chives

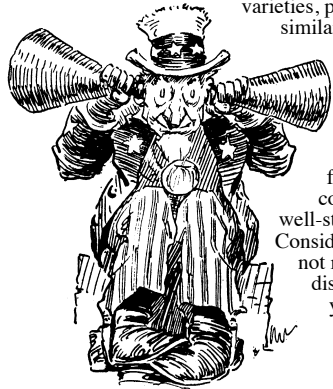
Scab is the worst fungal disease affecting apples in New England. You can greatly reduce scab pressure by avoiding McIntosh, Cortland, Fameuse and any "Mac" relatives. But this is a tough call since they are all excellent varieties. You can also reduce scab pressure by picking up drops, cleaning up or mowing fallen foliage, and spreading a thin bit of lime and/or compost over the fallen foliage in the fall. There are reports that planting chives around apple trees and using chive infusion as a spray will reduce scab pressure. We've been doing so and will give you a report before long. At the very least, we'll have plenty for our cottage cheese, salads and baked potatoes.

Chive Infusion Spray Recipe

Pour 1 quart boiling water over 1 cup chopped chives. Cover and set aside to cool. Strain and use the liquid within 4 hours.



Liberty Late Summer-Fall. NY 55140-19 [Macoun x PRI 54-12 (PRI Co-op complex cross includes Rome Beauty, Jersey Black, McIntosh, Wealthy and *M. floribunda*)] NY Stn, 1978. One of the best of the disease-resistant varieties, particularly in the Northeast. Somewhat similar to Macoun. Handsome medium-sized



round-conic bluish-pinkish-red apple with crisp white flesh of very good dessert quality when dead ripe.

Excellent cooking and sweet cider, too. Recommended for single-variety sweet cider. Keeps till late fall. Begins fruit production at an early age, bearing consistent heavy annual crops. Naturally well-structured sturdy tree is easy to care for. Considered to be 100% scab-immune, though not resistant to insects or other lesser apple diseases. Don't let it crop too heavily at a young age. Blooms early to midseason.

Z4-6. All are **ME Grown**.

139A Liberty, \$29.25

139C Liberty on M111, \$29.25

139D Liberty on Bud 9, \$29.25

Macoun Fall. NY 547 (McIntosh x Jersey Black) NY Stn, 1923. This is an apple with a near cult following, even though practically no one seems to know how to pronounce the name. (It rhymes with town, not tune!) Especially good choice for those who like McIntosh but live south of Maine where Macs might not reach their prime. Medium-sized ribbed lobed truncate fruit, almost entirely covered with a dark purplish-red blush. The very juicy aromatic white flesh is crisp with a rich sweet flavor. Excellent for fresh eating. Large vigorous upright spreading tree. Moderately productive. Although susceptible to scab, the fruit appears to be less affected than McIntosh. Macoun also shows some natural resistance to insect damage. Blooms mid-late season. Z4-6. **ME Grown**.

142A Macoun, \$29.25

Major Early Fall. Full bittersweet cider apple. Probably originated in central Somerset County, England, before 1900. Sweet, soft, woolly, juicy and bitter. (SG 1.054, acidity 1.8g/L, tannin 4.1g/L) Recommended for combining with other early cider varieties such as Ashton Bitter, Ellis Bitter and Nehou. Medium-sized pinkish-rosy-red roundish-oblate-conic fruit, sometimes ribbed and usually featuring a small yellowish russet splash around the stem. One of the English varieties now becoming popular in the U.S. Vigorous tree with a good central leader and a spreading branching habit. Similar to other Jersey-type cider varieties. Scab resistant. Late blooming. Z4-6. **ME Grown**.

143C Major on M111, \$29.25



See our five dog team harnessed to a load of Burbank plums, American Blush apples, Wilder Early pears, and Loudon raspberries. Such a team as this is seldom used in America, but our C.A. Green often saw such in Belgium and Switzerland during his vacation last summer. There is no reason why our million of idle dogs should not be set to work, and what more useful work than in drawing fruits to market, and what more attractive.

- from Green's Nursery Catalogue, 1895

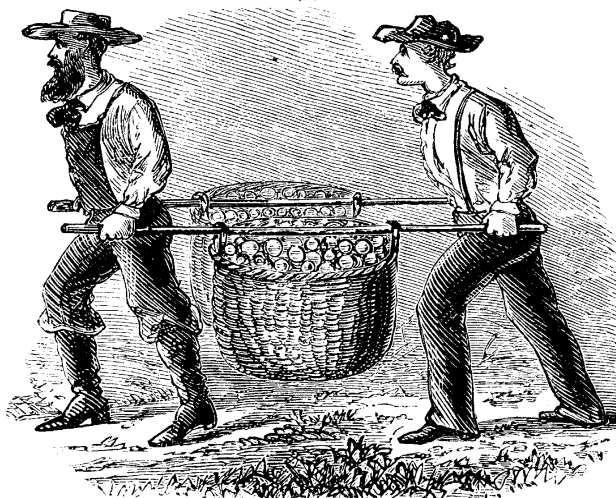
McIntosh Fall. Possibly a seedling of Fameuse or St. Lawrence. Dundela, Ontario, 1811. The most important apple in the Northeast. It grows to perfection in our cool climate. There are many strains of McIntosh, some striped, some blushed, some solid red. Recent strains have been selected for traits other than flavor, and the variety has gotten a bad reputation. This strain has green ground color overlaid with red stripes and blush. It was planted in 1906 in Mercer, ME. It has the best "Mac" taste. A delicious aromatic apple. Annual cropper. Large beautifully rounded spreading strong easily managed tree. Very susceptible to scab. Blooms midseason. Z4-5.

144A McIntosh, \$29.25

144B McIntosh on B118, \$29.25 **ME Grown**.

144C McIntosh on M111, \$29.25 **ME Grown**.

144D McIntosh on Bud 9, \$29.25 **ME Grown**.



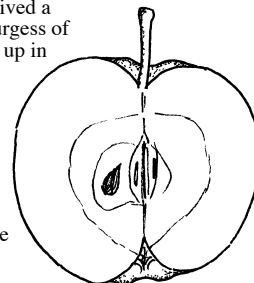
Milden Fall-Winter. Alton, NH, about 1865. Also called **Milding**. All-purpose winter variety we recommend for growing where Baldwin lacks hardiness. It's as good as Baldwin and would have a better chance up into the coldest regions of the lower 48. Large oblate-to-conic fruit mottled and splashed with bright red. Good for fresh eating and cooking. The fine-textured whitish flesh, tinged with yellow, is coarse, quite juicy, sparkly crisp and melting. Medium hard with a snap. Very pleasing. Famous for winter pies. Once fairly common in northern New England and still found in old Maine orchards. Some years ago I received a wonderful letter from 101-year-old Eva Burgess of Sangerville who wrote, "I practically grew up in an apple orchard. My grandfather, Henry Leland, was an orchardist in Piscataquis County...His main apple was Milding." Ripens late and keeps until spring. Large vigorous tree. Z3-5. **ME Grown**.

146A Milden, \$29.25

Moses Wood Summer. Moses Wood intro, Winthrop, ME, before 1830. If you're like Gene and won't eat apples that aren't tart, this may be the variety for you.

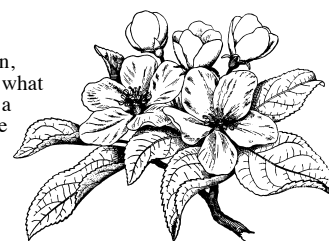
Late-summer dessert and cooking apple. White medium- to fine-grained tender very juicy flesh, definitely *subacid*. Excellent tart fresh eating. That tartness also adds a superb kick to an early season pie. Fruit is medium-sized, roundish to conic with distinct ribbing and a crown around the blossom end. Pink blushed and red striped. Vigorous upright productive tree. Named for the itinerant Winthrop grafter who traveled on horseback spreading apple varieties around central Maine long before the days of Fedco. Blooms midseason. Z4-6. **ME Grown**.

147A Moses Wood, \$29.25



Apple Pollination Panic

Customers frequently ask us about pollination and apples. Early season, midseason, late season bloomers — what does it all mean? Should you be in a tizzy about pollination? No. If there is at least one other apple tree somewhere in your neighborhood, the bees will do their thing, and you'll get fruit. That other tree can be a Fedco apple of a different variety. It can be a wild roadside apple tree. It can be an ornamental crabapple. It can be old or young, in your yard or your neighbor's. But it must be different from yours. In other words, avoid planting ten Honeycrisps if no other apples are in sight. Most apples flower at about the same time so timing is almost never an issue. However, if you live on a desert island with only an early bloomer and a late bloomer, you should plant a midseason bloomer, too.



Northern Spy Winter. Chance seedling. East Bloomfield, NY, about 1800. One of the most famous of all heirloom apples. Very large delectable all-purpose fruit, covered with pink and light red stripes. Very juicy and tender. Even when the thin skin bruises, the fruit keeps extremely well. Cooks up quickly into a loose mild sauce. No need to remove the skins. Its reputation as a pie apple is more than well deserved: makes a very good single-variety pie! Its one drawback is being slow to come into bearing, although for us it's been worth the wait. Medium-to-large moderately vigorous long-lived tree. Good scab resistance. Leaves out late and blooms late season. Z4-6. Both **ME Grown**.

150A *Northern Spy*, \$29.25

150C *Northern Spy* on M111, \$29.25

Pomme d'Or Late Summer. Unknown parentage, probably originating in Québec before 1870. Extremely hardy large light-yellow midsummer cooking and dessert apple reminiscent of Yellow Transparent. The fruit is oblong or even rectangular in shape. Occasionally the large hollow core will be partially filled with a sweet nectar you can actually sip after cutting the fruit in half. As the fruit ripens the faint yellow deepens to a rich gold, hence the name Pomme d'Or (Golden Apple). Eat it fresh and use it in summer pies. Makes a light golden-yellow mild-flavored chunky sauce. Fruit-explorer Gloria Seigars introduced it to me near St. Agatha, ME, in the fall of 1998. Many thanks to Gloria, her cousin Phil Roy, and to Edwiche Michaud for their generosity in taking us to their family orchard overlooking Long Lake and letting us cut scionwood. Edwiche believes their grandfather brought the apple to Maine from Canada in 1870. Uniquely shaped, beautiful and rare. Hardy enough for all northern districts. Long mid-late bloom season. Z3-5. **ME Grown**.

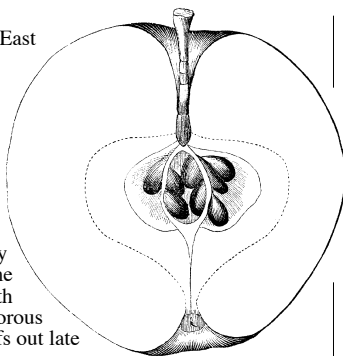
152A *Pomme d'Or*, \$29.25

Poorfarm Pleasure Fall. Probably Cumberland County, ME, before 1900. Very large distinctly conical fruit with a blossom end that resembles the nipple on a lemon. The apple is mostly a light buttery yellow, decorated with a few short brilliant-red stripes and sometimes a bit of red wash. The overall look leans heavily toward yellow. Flavor is fairly mild with some bitterness. It cooks quickly into a fine creamy light pink slightly tart sauce. Could also be an excellent addition to fermented cider. Use them up by mid-late October. Introduced to us by Portland-area fruit-explorer Bruce McVicar who took me to the enormous tree at an old estate not more than 100 yards from Casco Bay in early October 2014. We've never seen anything like it. You haven't either. Our provisional name is Poorfarm Pleasure. Thanks to Bruce and to the Robbins family for allowing us to take scionwood. Uncertain bloom time. Z4-7. **ME Grown**.

153A *Poorfarm Pleasure*, \$29.25

Porter's Perfection Late Fall. Medium-bittersharp cider apple. Charles Porter intro, East Lambrook, near Kingsbury Episcopi, Somerset, England, before 1900. Heavy cropper of small dark red-blushed fruit. (SG 1.054, acidity 8.2g/L, tannin 2.5g/L) Liz Copas writes that it "can produce an excellent cider. Its juice is rather acidic bittersharp and is better blended for a more balanced product." When I meet cidemakers, I always ask them about their favorite varieties. Eric Shatt of Redbyrd Orchard Cider in the Finger Lakes region of New York replied "Porter's Perfection." Redbyrd's website calls it an "excellent balance of tannins and acidity." Often produces twins or triplets—two or more fruits fused together. Similar to the excellent Lambrook Pippin; the two varieties are thought to be of same parentage. Scab resistant. Blooms midseason. Z4-7. **ME Grown**.

154A *Porter's Perfection*, \$29.25



Where can I taste that apple?

While we pride ourselves on our variety descriptions, there's nothing like the real thing. No words can compare to the taste. Frequently I'm asked, "Where can I taste a?" Here are a few suggestions.

Apple-tasting opportunities in Maine:

- **Aroostook Apple Day**, Saturday, October 8, 2016, at the Littleton Agricultural Museum in Littleton.
- **Great Maine Apple Day**, Sunday, October 16, 2016, at MOFGA in Unity.

Visit the orchards near you. There are many great orchards all over "Fedco Nation." If you know of any we should list, please let us know.

Maine:

Contact the Maine Dept of Agriculture at (207) 287-3491 or online at getrealmaine.com for a complete list of the orchards in Maine. Many have unusual varieties. Even one or two rare finds can be worth the trip. Below are some orchards with good collections. There are others, too. Don't be frustrated if you call and reach no one. Just go. By September most of them are open 6 or 7 days a week.

- The Apple Farm, Fairfield, Somerset County (207) 453-7656. A great collection of unusual old and new varieties.
- Bailey's Orchard, Whitefield, Lincoln County (207) 549-7680. One of the largest collections of old varieties in the state. Pears, plums and crabapples, too.
- Cayford Orchards, Skowhegan, Somerset County (207) 474-5200, cayfordorchards.com. Fifty-seven new and heirloom varieties of tree fruit on a sixth-generation family farm.
- Doles Orchard, Limington, York County (207) 793-4409, dolesorchard.com. Mix of old and new. They have two un-named varieties crossed by the late Maine plant breeder Russell Bailey. Both are extremely rare, if not unique.
- Lakeside Orchards, Manchester, Kennebec County (207) 622-2479, lakesideorchards.com. Organic apples and a good collection of mostly new varieties.
- Maine-ly Apples, Dixmont, Penobscot County (207) 234-2043, mainelyapples.com. Excellent collection of old, new and rare varieties.
- Ricker Hill Orchards, Turner, Androscoggin County (207) 225-5552, rickerhill.com. Organic apples and more, mostly modern varieties.
- Rollins Orchard, Garland, Penobscot County (207) 924-3504, rollinsorchards.com. A very good collection of over 20 unusual old varieties. Plums and pears, too.
- Sewall Orchard, Lincolnville, Waldo County (207) 763-3956, sewallorchard.com. Organic apples including some of the first disease-resistant releases.
- Sweetser's Apple Barrel and Orchards, Cumberland Center, Cumberland County (207) 829-3074, maineapple.com. A great collection of 39 old and new varieties. Don't miss their Rolfe apples.

Other northeastern states:

- Bear Swamp Orchards, Ashfield, MA (413) 625-2849, bearschwamporchard.com. Organic U-pick apples and hard cider.
- Nashoba Valley Winery, Bolton, MA (978) 779-5521, nashobawinery.com. A very large collection of old and new varieties.
- Old Sturbridge Village, Sturbridge, MA (508) 347-3362, osv.org. Rare heirloom apple tree collection.
- Tower Hill Botanic Garden, Boylston, MA (508) 869-6111, towerhillbg.org. The best collection of historic varieties in southern New England. A great place to study the fruit. Usually for sale at a special event on Columbus Day weekend. Call ahead.
- Alyson's Orchard, Walpole, NH (603) 756-9800, alysonorchard.com. Large collection of new and old varieties.
- Gould Hill Orchard, Contoocook, NH (603) 746-3811, gouldhillfarm.com. Large collection of new and old varieties.
- Lost Nation Orchard, Groveton, NH, michael@herbsandapples.com. Many unusual varieties.
- Poverty Lane Orchards, Lebanon, NH (603) 448-1511, povertylaneorchards.com. One of the best collections of unusual dessert apples in New England. One of the largest collections of cider apples in the U.S. They have most of the cider varieties we sell.
- Lynoaken Farms, Lyndonville, NY (585) 765-2046, lynoakenfarms.com. 350 varieties new and old.
- Connecticut Valley Orchards, Westminster, VT (802) 722-3340. Large selection of new and old varieties.
- Windfall Orchard, Cornwall, VT (802) 462-3158. More than 80 varieties of fruit: apples, pears, plums, cherries and quince.

Prospect Greening Fall. Possibly Prospect, Waldo County, ME, before 1900. A mid-fall variety, perfect if you love to cook in October. Medium-large and roundish-oblate fruit with a lot of russet netting and a glowing orange-pink blush. The basin is shallow and the stem-end cavity is narrow and deep. The flesh is white, subacid and well-balanced. Makes a very good sauce. Use it in pies. Cooked apples are better than fresh—browns very quickly. Rediscovered in 2014 with the help of Todd Little-Siebold who directed me to a small orchard on Verona Island at the mouth of the Penobscot River just over the amazing bridge from Prospect. There were twelve trees including six Wolf Rivers and four of these wonderful Greenings. I knew I was in love with this apple before I'd even taken a bite. Probably midseason bloomer. No scab. Z4-7. **ME Grown.**

156A Prospect Greening, \$29.25

Redfield Fall. Wolf River x Niedzwetzkyana. NY Stn, 1938. One of the best and largest of the red-fleshed apples. Although usually considered way too tart for eating out of hand, the medium-large fruit with opaque solid rusty-red skin is absolutely great in pies. It makes wonderful jelly and turns sauce and cider red. Gained fame in the hard-cider world thanks to the wonderful single-variety Redfield cider and Redfield blends made by the late Terry Maloney of West County Cider. Very sharp and bitter in cidermakers' lingo. Flesh is two-toned: deep pink fading to white around the core. The flowers are also two-toned, deep pink, tipped with small white lightning bolts. And the bronze-red foliage adds further interest all season. Sometimes listed as a crabapple, but don't be fooled: the apples are the size of Macs. One of the very first to bloom each year. Z3-6. Both **ME Grown.**

158A Redfield, \$29.25

158C Redfield on M111, \$29.25

Redfree Summer. Coop 13 [PRI 2175-7=(Raritan x PRI 1018-101)] PRI Coop, 1981. One of the only summer apples you can call crisp. Medium-sized round solid purpley-red fruit with indistinct darker red stripes and a green spot around the stem. Not as purple as Liberty or even McIntosh. Firm sweet crisp juicy apple ripens mid-late August in central Maine. Recommended. Excellent fresh eating and creamy thick coarse sweet applesauce. Keeps two weeks on the counter or two months in cold storage. Part of the second wave of disease-resistant scab-immune releases from the PRI breeding program. Becoming rather popular in Maine, it turns up in smaller commercial orchards and here and there in farmers' markets. Vigorous somewhat upright habit. Scab immune. Blooms midseason. Z4-6. **ME Grown.**

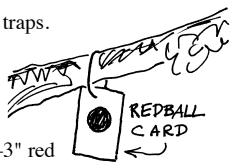
159A Redfree, \$29.25

Rhode Island Greening Fall-Winter. Green's Inn, near Newport, RI, about 1650. Also known as **Greening**. The classic New England cooking apple. Large roundish-conic-oblate green fruit often has a tannish blush. Light yellow-green flesh is crisp and tart. Great for pies, also excellent for fresh eating. The number one green apple for a few centuries before Granny Smith arrived from Down Under and stole the show. The most well-known of the various Greenings. Because of its high-quality fruit and adaptability to a range of soil conditions, Rhode Island Greening established itself as one of the most important commercial varieties throughout the Northeast in the 19th c. Keeps well into winter. About as hardy as Baldwin. Old trees can still be found in central Maine. Not recommended for northernmost districts, but cooks everywhere else should love it. Late-season bloomer. Z4-7. **ME Grown.**

160A Rhode Island Greening, \$29.25

Apple Maggot and plywood

The late Don Johnson made nifty apple maggot traps. We've gotten into doing so ourselves. In small orchards, the traps alone may be enough to reduce the AM pressure to a tolerable level. Here's how: Cut up plywood (3/8" or 1/2") into 8x11" rectangles. Drill a hole along the top edge. Paint the plywood bright yellow with a 2-3" red spot (the apple) in the center. Coat with Tangletrap and hang three in each tree in mid-June, positioning the traps at about chest height. Trim away any foliage that might stick to the trap. Check for AM flies. Now and then, when they get too gooky, scrape the traps and add new Tangletrap. Remove traps around Labor Day.



Roxbury Russet Winter. Roxbury, MA, early 1600s. Said to be the first named American apple variety. One of the best late-winter dessert apples—it would be hard to live without a stash of them in our root cellar. Hard medium-large patchy green and russeted fruit not uniform in size, shape or color. Rich, spicy and juicy. Exceptional sauce. Dried, it's nice and tart with a pleasant first sensation and a lingering good aftertaste. The aromatic juice is recommended by some for cider, fresh or fermented. Medium-to-large vigorous spreading tree. One of the most popular commercial apples of the 19th c., largely because it can store until summer. Scab resistant. Blooms midseason. Z4-6. Both **ME Grown.**

161A Roxbury Russet, \$29.25

161C Roxbury Russet on M111, \$29.25

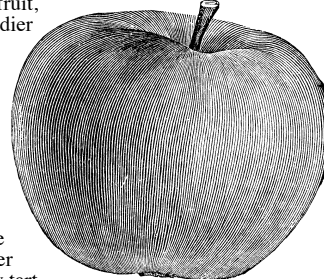
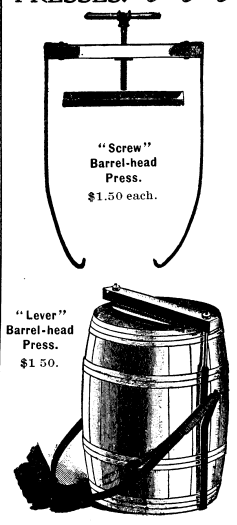
Shavel Sharp Fall. Bittersharp cider apple. Possibly a wild seedling, Yarmouth, ME, c. 1960. In our ongoing search for bitter cider apples, this is a current favorite. We'd categorize this as a *really* bittersharp. Highly astringent and very difficult to eat. You should have seen his expression when Steve Wood took a bite at the 2014 CiderDays. It still makes me giggle. Very juicy small red-striped fruit. (SG 1.055) Introduced to us by cidemaker Steve Barr who declared it the most bitter apple he'd ever tasted. So far, we agree. We named it, a mash-up of the current owners' name and the farm's traditional name. Scionwood made available through the generosity of the Shavel family at the old Sharp Farm. Z4-8. **ME Grown.**

162A Shavel Sharp, \$29.25

Stark Winter. Delaware County, OH, about 1850. Rugged high-quality all-purpose winter storage variety that keeps beautifully in the root cellar until April. Large blocky dull reddish green fruit, sometimes confused with Baldwin. Hardier than Baldwin though not as hardy as another tough winter keeper, Mildens. Commonly grown commercially in northern districts 100 years ago. Trees can still be found in central Maine. Not of Baldwin dessert quality, but very good for cooking and drying. Ruth Smith from York Harbor wrote to me years ago about Stark: "I was always amazed at the color and thickness of the applesauce. I had to add a lot more water than the usual apple needed. It was very tart applesauce." According to Hedrick in his *Cyclopedia of Hardy Fruits*, the tree is "vigorous, hardy, healthy, productive, and very accommodating as to soils." Keeps until spring. Not to be confused with the Maine apple Starkey or the famous Stark Brothers' Nursery in Missouri. Midseason bloomer. Z4-5. **ME Grown.**

164A Stark, \$29.25

BARREL-HEADING PRESSES.



Fedco Cider T-shirts:

"It's Always OK to Be Bitter"

Celebrate your favorite fall drink with our popular cider T-shirt, featuring John Bunker's full-color paintings of ten of the most famous English, French and American cider apples. Printed at Maine's own Liberty Graphics.

Men's Shirts 100% organic cotton grown in the U.S. Natural color.

L655A Men's T-shirt, small, \$18.00

L655B Men's T-shirt, medium, \$18.00

L655C Men's T-shirt, large, \$18.00

L655D Men's T-shirt, extra-large, \$18.00

L655E Men's T-shirt, 2x-large, \$18.00

L655F Men's T-shirt, 3x-large, \$18.00

Women's Shirts More fitted style made from soft light grey 100% cotton.

L656B Women's T-shirt, medium, \$18.00

L656C Women's T-shirt, large, \$18.00

L656D Women's T-shirt, extra-large, \$18.00

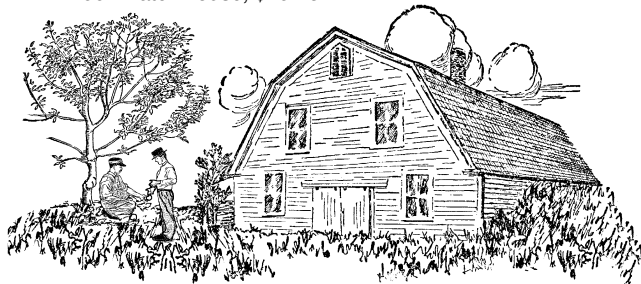


Sweet Sixteen Fall. MN 1630 (MN447 x Northern Spy) U Minn, 1979. The first bite into a Sweet Sixteen is always a surprise. Fine-textured crisp flesh contains an astounding unusually complex combination of sweet, nutty and spicy flavors with slight anise essence, sometimes described as cherry, vanilla or even bourbon. I always love Sweet Sixteen season. Truly excellent fresh eating, although it is too sweet for some palates. Round-conic bronze-red medium-sized fruit, striped and washed with rose-red. Annual bearer if thinned. Very hardy moderate-sized vigorous vase-shaped tree grows upright with willowy branches that get loaded with fruit but do not break. Best grown in northern districts. Keeps till midwinter. Some resistance to scab. Blooms mid to late season. Z3-6. **ME Grown.**

165A Sweet Sixteen, \$29.25

Tater House Fall-Winter. Unknown parentage. New Sweden, Aroostook County, ME, about 1980. Extremely hardy volunteer seedling discovered in 1998 growing on the earthen berm beside a potato storage house in northern Maine. Absolutely magnificent big perfectly shaped beautiful red-violet fruit. The smooth and shiny skin is reminiscent of a ripe eggplant. Somewhat ribbed, but the overall appearance is round. Decidedly tart but excellent fresh eating by late September. The flavor improves right into January. Does not cook down quickly but makes a very decent sauce. Skins have a nice flavor. Not a single-variety pie apple though could be good in a blend. We grafted it at our place and it has been fruiting now for several years. We've become big fans. Cammy says, "I love them. They're delicious." Chris Drew, another fan and former head ranger at Baxter State Park named it. Keeps remarkably well. No scab. Blooms mid-late season. Z3-5. **ME Grown.**

166A Tater House, \$29.25



Tolman Sweet Fall-Early Winter. Sweet Greening x Old Russet. Dorchester, MA, before 1700. Sometimes called **Talman Sweet**, **Taulman Sweet**, **Tomey Sweet** and many variations. One of the first American apples and one of the few to remain popular for centuries. Truly an all-purpose fruit, used for cider, cooking, dessert and even animal fodder.

Once popular for pickling, boiling and baking. Especially prized in Maine for apple cake. Unforgettably peculiar sweet strange flavor. Very low acidity. Moderately juicy medium-sized greenish fruit, sometimes with a bit of a blush and often marked by a suture line running from stem to stern. Long-lived heavy-bearing vigorous tree. Still often found throughout central and southern Maine. Blooms mid-season. Z4-6. **ME Grown.**

167A Tolman Sweet, \$29.25

Trailman Summer. Trail x Osman. Beaverlodge Research Farm, Alberta, Canada, 1973. Wonderfully flavored dessert crabapple that ripens around Aug. 20 in central Maine. Translucent yellow skin has a porcelain finish, white bloom and sometimes a brownish-red blush. Fruit the size and shape of an egg. Spicy sweet exceptionally crisp and crunchy golden-yellow flesh. Visitors who try it here in our orchard usually fall in love instantly. Some have called it the best summer apple they've ever tasted—some even call it their favorite apple of any season! Hangs on the tree for two weeks without softening. Precocious annually productive moderately vigorous somewhat drooping spreading tree. Exceedingly hardy, possibly to Zone 2. Might be tasteless south of Zone 5. One of the first to bloom at our place each year. Z2-5. **ME Grown.**

168A Trailman, \$29.25

If you missed any of the past installments of the orcharding sidebars and would like hard copy back issues, we have extra copies of the 2013, 2014, 2015 and 2016 catalogs. Send a request. They are \$5 apiece.



Tremlett's Bitter Fall. Bittersharp cider apple. Unknown origin, but most likely from England. Small-to-medium roundish-conic red fruit. A good bittersharp cider apple with lots of hard tannin. Not the true Tremlett's Bitter of 19th-c. Devonshire. Some think it might have resulted from a grafting mistake and could be a mislabeled Skyrme's Kernal. Now widespread in the U.S. and sometimes called **Geneva Tremlett's** by the cider community. It may well be that no one in the States has the true Tremlett's. One contributor on *Cider Digest* wrote, "The pleasant irony is that the mis-ID'd variety is actually a rather nice cider apple. I haven't been nearly bold enough to make a varietal cider of it, but it's a real help in a blend that needs a nudge in character." Another wrote, "It is indeed a fine bittersharp and a fair cropper as well." In trials here in central Maine. Stay tuned for bloom time and other stuff. Z5-8. **ME Grown.**

169C Tremlett's Bitter on M111, \$29.25

Wealthy Fall. Cherry crab seedling. Excelsior, MN, 1860. A Maine native of sorts, the seed having come from Bangor. Superb all-purpose fall apple, one of the most famous of all hardy varieties. With its perfect texture and complex flavors, Wealthy is considered to be one of the best apples. I agree. Round-oblate medium-sized fruit is pale greenish-yellow streaked with carmine. About as firm as McIntosh. Tender very juicy sweet subacid flesh is white, often stained red. Good eating and even better cooking. Wonderful pies! Good acid source for fermented cider. Ripens over a long period. Productive moderately vigorous long-lived small- to medium-sized tree. Blooms early. Z3-4. **ME Grown.**

171A Wealthy, \$29.25

Wickson Fall. (Esopus Spitzenburg x Newtown Pippin) Albert Etter intro, Humboldt County, CA, 1944. One of the most intensely flavorful apples we list. Small roundish bright red fruit is crisp, juicy, tart, tangy and spicy. Extremely high in both sugar and acid. Sugar level of the juice is around 25%. Highly recommended for dessert. Keeps until January. Becoming one of the most sought-after American cider apples, both for blending and as a single varietal. In September the tree looks like a mass of cherries. Bred and introduced by the generally unknown Albert Etter, one of America's most innovative and important fruit breeders of the 20th c. Wickson bears young, heavily and annually. Blooms midseason. Z4-8. Both **ME Grown.**

173A Wickson, \$29.25

173C Wickson on M111, \$29.25

Williams Pride Summer. Co-op 23 [PRI 2845-1=(PRI 1018-101 x NJ50)] PRI Co-op, 1988. Probably the most popular summer apple among the newly developed disease-resistant introductions. Like Redfree, another PRI intro, it's actually crisp, which is rare for a summer apple. Deep purple roundish-conic irregularly shaped fruit highlighted with areas of glowing rosy red and covered with a thin bloom. Light cream-colored flesh with red staining just under the skin. Firm, crisp and very juicy. Has a nice acidic blend of tart and sweet, reminiscent of Fameuse. Long ripening period means you don't have to eat them all at once. Vigorous annually bearing tree with some biennial tendency. Well-shaped with strong right-angled branches that do not require careful training. Highly resistant to fireblight, cedar apple rust and sooty blotch; resistant to powdery mildew. Scab immune. Blooms early to midseason. Z4-7. Both **ME Grown.**

174A Williams Pride, \$29.25

174B Williams Pride on B118, \$29.25

Maine Heritage Orchard Stewardship Apple The Maine Organic Farmers and Gardeners Association (MOFGA) has established the Maine Heritage Orchard. Located in a renovated gravel pit in Unity, the terraced polyculture orchard will be unlike any orchard anywhere. Under the direction of Fedco's John Bunker, 240 apple trees have been planted so far with many more to follow. You can join in this effort by becoming an Apple Steward. By purchasing a Heritage Orchard Stewardship Apple, you become the proud keeper of one of the varieties represented in MOFGA's orchard. In the event that the orchard's tree dies, you'll have the backup so we can collect scionwood for grafting another. We'll send you a rare historic apple tree and a form to fill out. After planting your tree, you return the form with the tree's location to MOFGA. MOFGA will contact you from time to time. \$30 from the sale of each tree goes to support the Maine Heritage Orchard (MeHO) project. For more information go to mofga.org. All trees best grown from Z4-6. **ME Grown.**

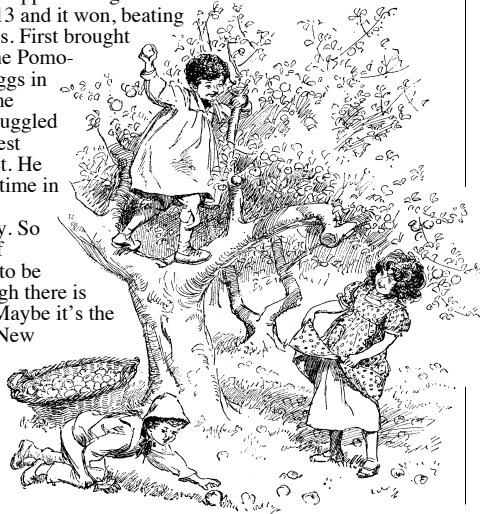
200A Stewardship Apple, \$50.00



Windham Russet Late Fall. Parentage unknown. Massachusetts before 1870. Excellent dessert apple for the connoisseur. The darkish brown russet skin has a distinctly bumpy rough texture, unlike any other russet we know. The stem area is sometimes lipped like Pewaukee. We brought it to the Franklin County CiderDays apple tasting at old Deerfield in November 2013 and it won, beating out some really great apples. First brought to the attention of the Maine Pomological Society by D.J. Briggs in 1885. Z.A. Gilbert, longtime president of the society, struggled to identify the apple. His best guess was Windham Russet. He wrote, "I have spent much time in search of a pointer to the identification of this variety. So choice a russet is worthy of attention." We agree. Said to be from Massachusetts although there is no Windham down there. Maybe it's the Windham in Connecticut, New Hampshire, Vermont or Maine. Take your pick. Now making its big comeback after 131 years.

Z4-7. **ME Grown.**

175A Windham Russet, \$29.25



The Apples of New York by S.A. Beach, 1905. 2-volume set, 764 pages, hardcover. This two-volume encyclopedia of apples grown throughout the U.S. before 1900 is an essential text for apple enthusiasts. I refer to Beach almost every day of the year. Don't be misled by the name—it's not just about New York. Although it misses many of our obscure local varieties, Beach covers hundreds of the most important historic varieties you'll come across. It's not a searchable key, but it is fantastic with good-to-excellent histories, detailed descriptions and color images. Volume one includes a general history of apples and an explanation of relevant terminology related to apple identification. Original sets of *The Apples of New York* are still out there although prohibitively expensive for most folks. We're offering a very decent hardcover reprint—good for those who want to go easy on their old copy, and great for those who can't lay out the big bucks for an original edition. No need to wait until spring to receive *The Apples of New York*. You should get yours a couple weeks after ordering.

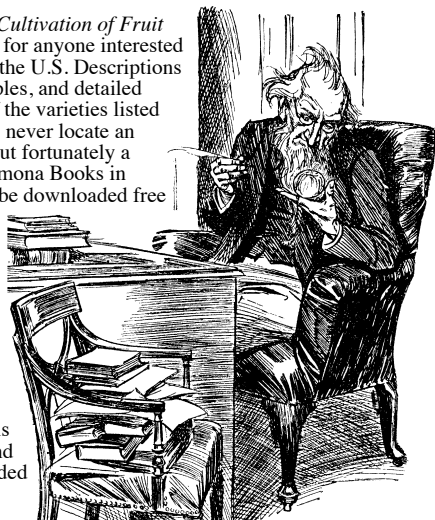
L658A The Apples of New York (two volumes), \$165.00

A few more of John's favorite old fruit texts

Bradford, Frederick C. *Apple Varieties in Maine*. 1911. A gold mine for northern New York and New England fruit explorers. Not in print, but you can find a free downloadable version at digitalcommons.library.umaine.edu. This was Bradford's masters thesis at U Maine. *Apples of Maine* by George Stilphen is a reprint of Bradford, but print copies are dear.

Coxe, William. *A View of the Cultivation of Fruit Trees*. 1817. Essential reading for anyone interested in the early history of cider in the U.S. Descriptions of fruit varieties, primarily apples, and detailed information on cider. Many of the varieties listed are probably extinct. You may never locate an original edition of this book, but fortunately a good reprint was issued by Pomona Books in 1976. The entire text can also be downloaded free at archive.org.

Thacher, James. *The American Orchardist*. 1825. Of particular interest to those interested in early apple history. Descriptions of many American apples originating before 1800. Includes a great deal about cider. Highly recommended. A new reprint is available from Palala Press, and the entire text can be downloaded free at archive.org.



Thoreau, Henry David. "Wild Apples." 1862. This wondrous essay was first published in *The Atlantic*. Available online in *The Atlantic's* archives, and a number of versions can be found in print, sometimes included in Thoreau anthologies. Find it and reread it every few months—it's that fantastic.

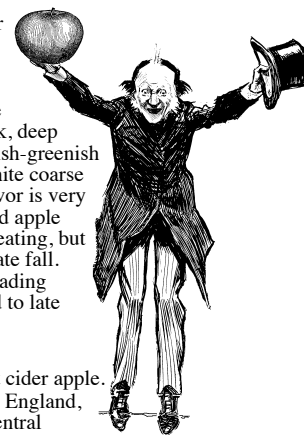
There is not a more noble, interesting, and beautiful exhibition than a fruit orchard, systematically arranged, while clothed in nature's foliage, and decorated with variegated blossoms perfuming the air, or when bending under a load of ripe fruit of many varieties.

- James Thacher.

The American Orchardist, 1825

Wolf River Fall. Alexander seedling. Near Wolf River, WI, 1875. Perhaps the most famous old-time apple in Maine, likely due to its catchy name and its extremely large—even huge—round-oblate fruit. Pale yellow-green skin mostly covered with pink, deep red and bright crimson with a vivid yellowish-greenish russet splash around the stem. Creamy-white coarse firm but tender flesh. Aromatic subacid flavor is very good for cooking. Makes an excellent baked apple and a decent pie. Not much good for fresh eating, but particularly tasty when dried. Keeps until late fall. Large moderately vigorous productive spreading tree. Excellent scab resistance. Blooms mid to late season Z3-5.

176A Wolf River, \$29.25



Yarlington Mill Fall. Medium-bittersweet cider apple. Yarlington, near North Cadbury, Somerset, England, 1898. Once common in farm orchards of central Somerset. Steve Wood's other favorite bittersweet (see Dabinett). Highly recommended for commercial plantings. (SG 1.052, acidity 2.2g/L, tannin 3.2g/L) Medium-sized yellow conical fruit with a pinkish blush and overspreading darker red stripes. Considered an all-round excellent cider variety: reliable, productive and adaptable to varying conditions. Rich brown low-acid mild lovely aromatic fruity cider, not aggressively tannic. Above-average sugar content. Slow to medium fermentation. You may need to head back the leader in early years to encourage strong laterals. Midseason bloomer. Z4-6. **ME Grown.**

177C Yarlington Mill on M111, \$29.25

Zestar Late Summer. (State Fair x MN 1691) U Minn, 1999. Extremely hardy high-quality mid-late summer dessert apple. Medium-sized blocky round fruit covered with red stripes and blush. Juicy and crisp with a well-balanced acid/sweet flavor. Michael Phillips, New Hampshire orchardist and author of *The Apple Grower*, said to me, "When you tree-ripen Zestar, it's fabulous." Northern Maine orchardist Steve Miller added, "That's an impressive apple. From the standpoint of appearance and quality, they're first rate." Keeps in cold storage up to seven weeks. Tree has moderately vigorous upright form; excellent horizontal branching habit makes it easy to train and prune. Precocious and annual-bearing. Blooms early season. **PVP.** Z3-5. **ME Grown.**

179A Zestar, \$29.25

PVP = Plant Variety Protected. Unauthorized propagation of the plant is prohibited. The use of PVP in the catalog is for informational purposes only and does not constitute an endorsement by Fedco of plant patenting.



Fruit-growing websites

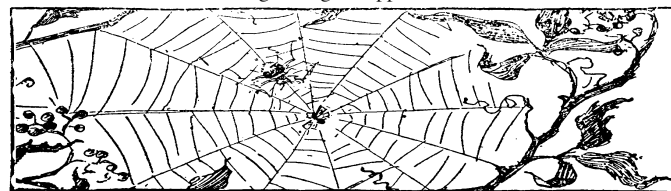
Whether you use organic or conventional orchard practices, several websites can provide you with a great deal of information about insect and disease pressure, spray timing, frost predictions and a whole lot more. Here are a few of the best:

UMaine Cooperative Extension: umaine.edu/ipm/programs/apple/

Cornell University: fruit.cornell.edu/

University of Vermont: uvm.edu/~fruit/

Holistic Orchard Network: groworganicapples.com/



Scionwood We offer scionwood (twigs for grafting) from a wide selection of fruit trees including many listed in this catalog. Price is \$5.00 per stick (about 8") plus shipping. Rootstock can be sent with your scionwood order in late March if you order it from the Scionwood form (pp. 37-38) or select that option online.



We sell scions (scionwood) in two ways. For those grafting up to 3 or 4 trees of a variety, one 8" stick will suffice. Each single 8" stick comes with a small paper ID label. This is how most of our customers purchase scionwood.

For commercial orchardists and others grafting large numbers of trees of a particular variety, we also offer scionwood by the foot (\$4.50 per foot, minimum order of 10'). In our own nursery work, we are usually able to graft about 6 or 8 trees from one foot of scionwood.

We collect the scionwood in winter and store it at about 40° until shipment in March. You can graft right away or store it for later use. Stored properly, it will keep quite well for several weeks. It needs to be kept in the fridge or in a cold dark basement, root cellar or shed. Storing scionwood at freezing temps can be okay (we have friends who stick theirs in a snow bank), but the very cold temperatures in a freezer will kill it. It will also die if it dries out or is stored without special protection from ripening veggies or fruits. We recommend *triple-bagging* your scionwood in plastic bags, no matter where you store it. There is no need to dampen the scionwood or to insert wet paper towels before bagging it.

- **Deadline** for ordering scionwood is **February 17, 2017.**
- Scionwood will be shipped to you around March 16.
- **Scionwood varieties** are listed on p. 38.

Scions are not trees!

Scions are twigs, not trees. They have no roots and will not grow if you plant them. They are cuttings from branch tips collected in the winter, intended for grafting in the spring.

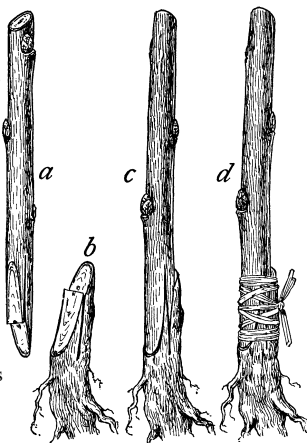
Is grafting easy to do? Yes and no.

It is an acquired skill. Experienced grafters often have 100% "take" (success rate) with their grafting. Beginners often have less than 50% take—or even zero. While you can learn to graft from a book or video, we highly recommend the old-fashioned way of learning: find a real person to teach you. MOFGA (Maine Organic Farmers and Gardeners Association) has grafting classes every spring. Other organizations around the country do as well.

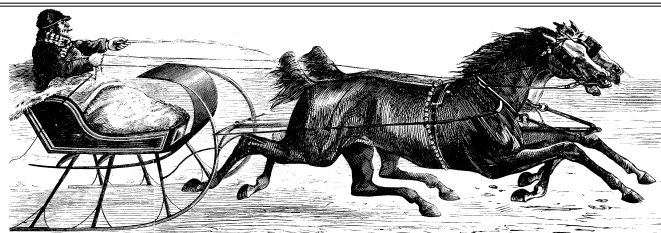
There are two general ways to graft.

You can **bench graft** by grafting scionwood onto rootstock. Generally we do this indoors in late March or early April. A few weeks later we plant the little trees in our garden or nursery to grow for a couple of years before setting them in the orchard when they're 3–4' tall. You can grow your own rootstock from seed or purchase it. We sell rootstock and can send it with your scionwood order if you select that option. You can also **topwork** scionwood onto existing trees in your yard or orchard. We do our topworking after the trees have begun to show some green growth, usually about May 10 in central Maine.

Can you collect your own scionwood? Of course! Grafting can open up a whole new world for you. You can purchase scionwood from Fedco and several other suppliers around the country. You can trade scionwood like you would baseball cards or recipes. And, best of all, you can collect your own scionwood from your favorite trees. We're always on the lookout for interesting varieties to graft. Before long, you may even become completely obsessed like many of us at Fedco!



Whip grafting.



As winter is the season when farmers do most of their travelling, visiting friends &c., it offers greater opportunities for them to collect Scions of choice fruits than any other season of the year.

— from *The Genesee Farmer*, 1831

Hardy Rootstocks We consider these to be some of the best rootstocks for home or commercial use. Even without grafting, any of these produces fruit suitable for wildlife. For rootstocks not listed, or for larger calipers or larger quantities, please write for information. We also offer grafting supplies in the Organic Growers Supply section of the Seed catalog or online at fedcoseeds.com.

Please note! We do our best to provide 1/4" caliper stock. Because of factors beyond our control (such as weather!) stock may be 3/16–3/8". We cannot guarantee scion or rootstock diameter.

Because of the way they are propagated, **clonal rootstocks (B118, M111, G11, B9 apples and OHxF97 pear)** rarely come with more than a few roots.

You may order rootstock for shipment around March 16 by using the scionwood order form, available in this catalog, page 37. Rootstock ordered on the regular order form in this catalog, page 35, will be shipped with the rest of the Tree order in April. Either option is available online.

Please join us Sunday, March 26, 2017, at the Maine Tree Crop Alliance annual Scionwood Exchange and grafting workshop in the exhibition hall of MOFGA's Common Ground Education Center in Unity. MOFGA also offers a full range of organic orcharding classes; see mofga.org for details.

Malus 'Antonovka' (Apple) Hardy Russian seedling rootstock for full-sized "standard" apple trees. The hardiest rootstock we offer. Space trees 20–30' apart. Z3.

206A *Malus Antonovka*, bundle of 10, \$29.00

Malus 'Budagovsky 118' (Apple) [Moscow Pear x (M8 and M9 pollen)] Michurinsk College of Ag, Michurin, Russia. Also called **Bud 118** or **B118**. Semi-dwarf rootstock, similar in size to M111 (about 85–90% of standard). Sometimes referred to as a "semi-standard" or even a standard. Space trees 20–25' apart. More productive than Antonovka, similar to M111 in that respect. Fruits sooner than trees on Antonovka. Very winter hardy and soil adaptable. Generally not used in commercial orchards due to its large size. Resistant to collar rot. Unknown susceptibility to fireblight. Z3.

207A *Malus Budagovsky 118*, bundle of 10, \$29.00

Malus 'M111' (Apple) [Northern Spy x Merton 793 (Northern Spy x East Malling11)] Collaborative intro of East Malling Research Stn and the John Innes Institute, Merton, England, about 1950. Technically named MM111, the MM refers to Malling and Merton. Very popular semi-dwarf rootstock produces a tree about 65–80% of standard. Space trees 15–20' apart. No staking necessary. Fruits at a slightly younger age than standards. Well anchored and adaptable to a wide range of soils. Woolly-aphid resistant. Not nearly as long-lived as standards. Hardy to Z4, maybe Z3.

208A *Malus M111*, bundle of 10, \$29.00

Malus 'Geneva 11' (Apple) Also called **G11**. Cornell University intro, NY. Dwarf rootstock produces a tree about a third the size of standard, about halfway between M9 and M26 (a bit larger than Bud 9). Space trees 8–10' apart. Suckers only slightly. Moderately susceptible to woolly aphid. Excellent fireblight resistance. Requires staking, weeding and watering in most locations. Z4/5.

209A *Malus Geneva 11*, bundle of 10, \$33.00

Malus 'Budagovsky 9' (Apple) [M8 x Red Standard (Krasnij Standart)] Also called **Red-leafed Paradise** or **Bud 9**. Michurinsk College of Ag, Michurin, Russia, 1946. Dwarfing rootstock, produces a tree about a quarter the size of a standard tree. Highly productive and precocious with high levels of soluble solids and large fruit size. Very hardy though not as hardy as Antonovka. In most locations, requires weeding, mulching, staking and irrigation. Space trees 5–10' apart. Some resistance to fireblight. Z4.

210A *Malus Budagovsky 9*, bundle of 10, \$29.00

Prunus americana (Plum) Seedling rootstock for American, Japanese or hybrid plums. Also recommended for grafting peaches. Seedling plum produces very decent 1" fruit without grafting. The best pollinator for hybrid plums. (See explanation in plum section on page 22.) Z3.

211A *Prunus americana*, bundle of 10, \$29.00

Prunus avium 'Mazzard' (Cherry) The rootstock we use for grafting sweet and pie cherries. Shallow spreading root system. Longer lived than Mahaleb though not as hardy. Does not do well in heavy poorly drained soils. Z4/5.

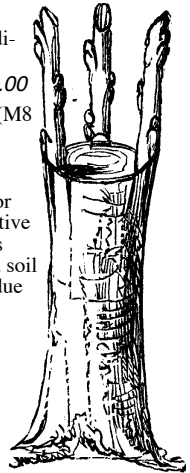
212A *Prunus avium Mazzard*, bundle of 10, \$29.00

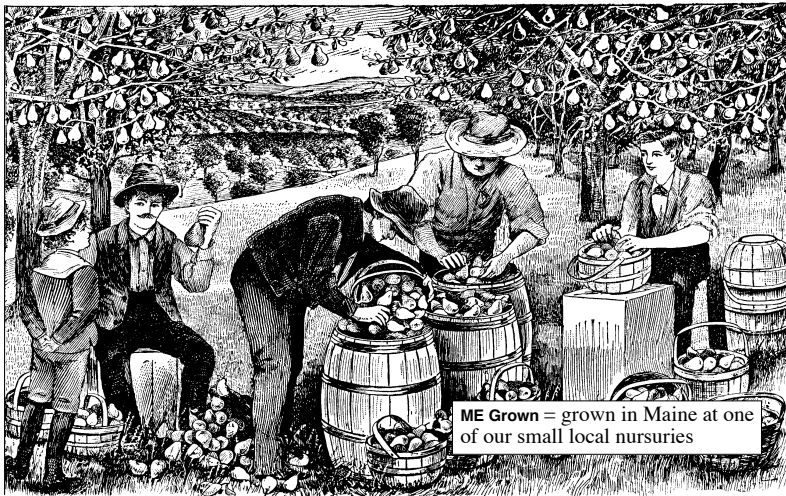
Prunus cerasifera 'Myrobalan' (Plum) Seedling rootstock for European plums. Not recommended for American or hybrid plums. Z3.

213A *Prunus cerasifera Myrobalan*, bundle of 10, \$29.00

Pyrus 'OHxF97' (Pear) (Old Home x Farmingdale 97) Produces a vigorous hardy well-rooted almost-standard-sized tree. Superior to *Pyrus communis* in numerous ways. We use "97s" for our Fedco catalog offerings. Z3/4.

214A *Pyrus OHxF97*, bundle of 10, \$29.00





ME Grown = grown in Maine at one of our small local nurseries

Pears *Pyrus communis* are native to temperate Europe and Asia and can grow up to 100' tall in the wild. Many pear varieties are hardy in New England but tend to take longer to come into bearing than apples. Farther south, pears tend to bear annually. However, in Maine, where they are approaching their northern limit, some varieties tend to bear biennially. Pick fruit when green and ripen it on the shelf. Or, for optimal eating, try Ed Fackler's method: "...when fruits exhibit slight color changes, begin to test pressure (using your thumb) near the stem. When there is a slight 'give,' pick all the fruit, store at or near 35° for 7 or more days. Then remove them as needed, allow them to sit at room temps for 2-4 days which allows them to ripen to peak flavor."

Pear blossoms are less attractive to bees than apple blossoms, so pears should be planted closer together to ensure pollination. Although some pears appear to be self-pollinating, we recommend a second variety for pollination. Bloom dates for all varieties are similar.

Pears are on OHxF97 rootstock and will reach approximately 25' at maturity; plant 15-20' apart. (3-6' trees)

Bartlett Late Summer. Seedling found in Aldermaston, England. Introduced to the U.S. in the late 1700s. Also known as **Williams' Bon Chrétien**. Most widely planted and well known of all pears, accounting for 75% of the U.S. commercial crop. Adaptable to many climates and soils. Large greenish-yellow classic oblong obtuse-pyriform fruit; very good quality. Full reliable annual crops. Large vigorous easy-to-grow long-lived tree bears young. I used to think you couldn't grow Bartlett in central Maine, but I've changed my mind. Now I recommend it as a good choice south of Bangor. Susceptible to fireblight. Good pollinator for Asian Pears. **Will not pollinate Seckel**. Z4. **ME Grown**.

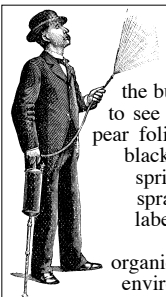
221A Bartlett, \$29.25

Blakeney Red Fall. Medium-sharp perry pear. Unknown origin, possibly a seedling of Thorn, from the village of Blakeney in the Forest of Dean, England, 19th c. Sometimes called **Painted Lady**, **Painted Pear**, **Circus Pear** and **Red Pear**. Beautiful small-medium turbinate or obovate red-blushed fruit is about 2" wide. (*Turbinate* means shaped like a top with a roundish body and short neck.) Firm and juicy. Traditionally used in cooking, jams and particularly in perry (pear cider). Classified as a medium-sharp perry pear, with medium acidity and medium tannins. Productive and best blended with other perry pears. Once grown throughout much of the English West Midlands, still quite popular in the U.K. Currently being planted by perry makers across the U.S. as well. Z4.

224A Blakeney Red, \$29.25

Bosc Fall. Seedling in Lourain, Belgium, 1807. Also called **Beurre Bosc**. Oblong acute-pyriform, or large and long-necked; dark rich yellow covered with cinnamon-brown russet. Distinctive sweet rich spicy buttery flavor. Melting juicy tender white flesh has smooth texture and a pleasing aroma. Somewhat gritty around the core. Large vigorous upright spreading tree bears huge crops annually. Good pollinator. A longtime favorite throughout central Maine. Z4. **ME Grown**.

225A Bosc, \$29.25



Pear Leaf Blister Mite

Pear leaf blister mites can sometimes be a problem for pear growers in the U.S. The tiny mites overwinter under the bud scales and become active in spring. They are too small to see with the naked eye, but you'll know you have them if pear foliage looks like it has red blisters that eventually turn black. We recommend a dormant oil or pure neem oil spray in spring just before the pears leaf out. You can also do a sulfur spray in the fall. (Apply appropriately, with protection. Read labels.) As a precaution, we spray Fedco pear trees with pure neem oil in the spring before shipping. Neem oil spray is organically certifiable and poses no risk to you, your pets or the environment. We have noticed that as young trees mature they often outgrow the infection.

Butt Late Fall. Bittersharp perry pear. Unknown origin, possibly from Norton Village, Gloucestershire, England, before 1886. Also known as **Norton Butt**. Traditional English perry pear. Not for fresh eating. Small yellow-green turbinate or roundish-obovate fruit is slightly less than 2" in diameter. Ripens late. Bittersharp with medium acidity and high tannin. Everything you want to produce the perfect perry. The old saying is "Gather your Butts one year, mill them the next and drink the year after." You pick them in the late fall this year, press them in January and drink the perry the year after that. Best blended with Blakeney Red and other perry pears. Z4.

227A Butt, \$29.25

Cabot Vermont Fall. An old dessert pear discovered in Cabot, VT, a few miles west of the New Hampshire border and about as far north as Bangor, ME. Introduced to us many years ago by Armando Bona of Passumpsic, VT. Not to be confused with the old Massachusetts pear Cabot. A superior dessert pear with medium-large oblong obovate-pyriform fruit. Yellowish skin has a slight reddish blush. Yellowish sweet flesh is coarse grained, extremely juicy, with no grit cells. Not only is it a delicious dessert fruit, it is also remarkable for its very rare "double" flowers. Highly ornamental! Annual and self-pollinating. Very hardy. Z4 or possibly even Z3. **ME Grown**.

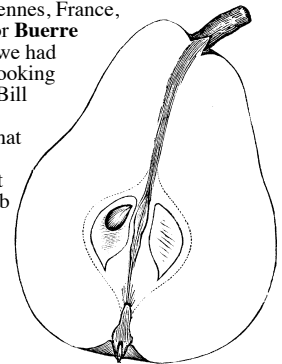
228A Cabot Vermont, \$29.25

Columbia Fall. Originated on the Casser farm, Westchester County, NY, about 1835. Good dessert pear, and excellent for canning or sauce. Large yellowish-green oblong obovate-pyriform fruit has yellowish-white granular sweet juicy flesh. Similar in appearance to Bartlett. Large vigorous spreading productive tree fruits very heavily every other year. Our scionwood comes from an old tree in the front yard of the Palermo Historical Society. Year-round it's a majestic sight, especially in fruit. People from all over stop by and put the fruit to good use. Z4. **ME Grown**.

229A Columbia, \$29.25

D'Amalis Early Fall. Probably from near Rennes, France, before 1800. Also called **Buerre d'Amalis** or **Buerre d'Amanlis**. Fedco sold it as **Pownal** before we had identified it. Very high-quality dessert and cooking pear introduced to us by June Lacombe and Bill Ginn, whose beautiful locally famous tree dominates their backyard. June wrote to us that the tree produces "an abundant crop of large sweet juicy fruit. It is thick skinned and must be eaten when it first 'dents' with your thumb while the skin is still green. At that point, it is tender, fragrant and luscious. We have collected pear recipes for years to use the prolific produce from this ancient tree and fattened our homegrown turkeys on the excess." Z4/5. **ME Grown**.

230A D'Amalis, \$29.25



Perry pear trees

This year we're offering traditional perry pears, individually and in collections below. Perry is fermented pear juice—the pear equivalent of hard cider. While you can ferment any pear juice, the best perry is made from small dry astringent varieties selected over the centuries just for that purpose. Most of these perry pears are not suitable for dessert or cooking. Traditionally, real perry could be made only within sight of May Hill on the border of Gloucestershire and Herefordshire in western England, which we visited in 2011. The trees were very tall and really old, and the perry was delicious. That edict has relaxed a bit and some version of perry is now being made most everywhere pears can be grown. The Orne region of Normandy is famous for its poire. We were there in 2014 and those trees looked about as old as the ones within sight of May Hill. At Franklin County CiderDays in western Mass you should be able to sample some very tasty perry at the amateur tastings.

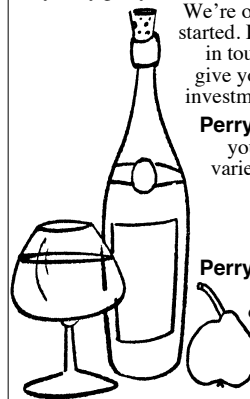
We're offering two collections to get your perry orchard started. If you're interested in larger quantities, please be in touch (john@fedcoseeds.com)—we may be able to give you an additional discount. These trees are a good investment. They should live to be about 300 years old.

Perry Pear Collection A bundle of 5 trees to begin your perry orchard. Will include at least 4 different varieties, all labeled.

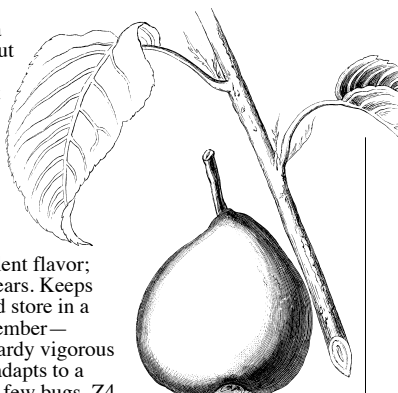
266A Perry Pear Collection, bundle of 5, \$135.00

Perry Pear Collection A bundle of 10 pear trees to begin your perry orchard. Will include at least 4 different varieties, all labeled.

267A Perry Pear Collection, bundle of 10, \$260.00



Dana Hovey Winter. Thought to be a seedling of Seckel. Roxbury, MA, about 1854. Introduced by 19th-c. fruit enthusiast Francis Dana who dubbed it *Dana's Hovey* in honor of C.M. Hovey, Boston nurseryman and author of *The Fruits of America*. Sometimes called **Winter Seckel** because of its similarity to Seckel. Small obovate-obtuse-pyriform rich golden-yellow russeted fruit. Intensely sweet highly aromatic tender storage pear has excellent flavor; possibly the best eating of all winter pears. Keeps extremely well. Harvest in October and store in a cool dry spot. Still great eating in December—sometimes even as late as February. Hardy vigorous moderately productive spreading tree adapts to a variety of soils. No scab and relatively few bugs. Z4. **ME Grown.**



DANA'S HOVEY.

231A Dana Hovey, \$29.25

Gin Fall. English perry pear. Probably from the Newent area of Gloucestershire, England. Greenish-yellow, russeted and red-blushed. Small to almost-medium, in the 2" range. Not for fresh eating. Makes a high-quality aromatic perry reminiscent of juniper, hence the name. Medium sharp with medium acidity and medium tannin. Often blended with Blakeney Red these days in western England. Said to be disease resistant. Z4.

234A Gin, \$29.25

Ginnybrook Fall. Unknown origin, possibly Belchertown, MA. This is the largest pear anyone at Fedco has ever seen. Gigantic and very oddly shaped, like a huge potato, 4" wide and more than 5" long. Even the smaller specimens are bigger than a Bartlett. Dull yellow skin, mostly covered with light tan russet. Crisp, perfumy and very juicy. Best for fresh eating and perry. Introduced to us by Hope Guardenier of Belchertown. She brought very good perry to the 2013 CiderDays. She gave me two pears. Wow! We have yet to identify the variety. For now, Hope calls it Ginnybrook. Ripens in October and keeps about a month. Z4. **ME Grown.**

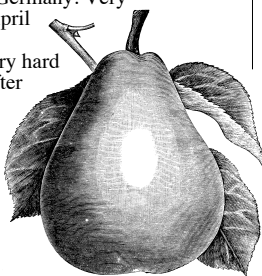
235A Ginnybrook, \$29.25

Hendre Huffcap Fall. Heirloom English perry pear. Probably originated near the villages of Bromsberrow and Haresfield in Gloucestershire, England, before 1900. Typically small fruit less than 2" in diameter. Yellowish skin partly russeted. Not for fresh eating. Sweet and astringent, with low acidity and low tannin. A huffcap is an old English term for a strong drink that makes your head swell and your hat levitate up off your hair. You could eat a huffkin teacake with your Huffcap perry, but if my perry is better than your perry, no need to leave in a huff. We'll drink both. Z4.

238A Hendre Huffcap, \$29.25

Kaspar's Winter Late Fall-Winter. Frankendorf, Germany. Very good tough-skinned storage pear—will keep until April in the root cellar. Greenish-mottled medium-small pyriform fruit with some russet splashes or dots. Very hard off the tree; don't begin to eat them until a month after picking. Coarse flesh with a good flavor. Years ago this nameless winter pear found its way from the roadside near Frankendorf to Unity, ME. The name came later, courtesy of grower Howard Wulf who calls it "the latest-keeping pear I've ever seen." Sturdy adaptable hardy precocious tree. Recommended for those who want pears after New Year. Z4. **ME Grown.**

239A Kaspar's Winter, \$29.25



McLaughlin Fall. Probably Oxford County, ME, before 1800. Excellent highest-quality dessert pear keeps well into winter. Medium-large obtuse-pyriform yellow russeted fruit, sometimes with a reddish blush. Sweet, rich, perfumed, extremely juicy and melting. Introduced to me by Steve Barr whose family's tree was planted about 120 years ago. "Don't despair this pear comes off the tree like a green rock in October. We shake them down after Columbus Day when the nights are getting cold. We bring them inside and place them in canvas bags, and start searching in a week or two. The taste is sweet with a hint of cinnamon, and the texture delightful, not mealy. A juicy pear you have to eat over a napkin or cut it up and eat out of a bowl... yields heavily year after year. This pear is easy to grow, we do nothing to it at all except pick them in October." Z4. **ME Grown.**

243A McLaughlin, \$29.25



Acute
Pyriform



Oblong
Acute
Pyriform



Oblong
Obovate
Pyriform



Oblong
Obtuse
Pyriform



Obovate



Obovate
Acute
Pyriform



ovate
Pyriform

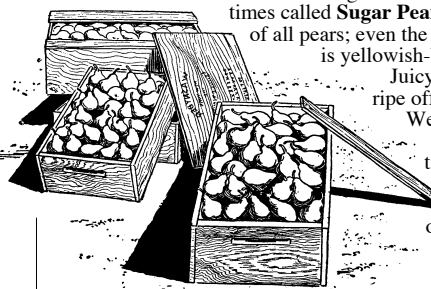
Nova Late Summer. Hammond, NY. Discovered and introduced by Bill MacKentley of St Lawrence Nurseries, Potsdam, NY. Large yellow roundish dessert pear with melting juicy flesh. Chris Blanchard's favorite pear. For decades he and Liz Lauer have been trialing a wide assortment of pears a few hours north of here in Penobscot County. He described it to me as "large with smooth creamy texture and a thin skin. Wonderful dessert pear. Also the best canning of our 12-14 varieties." Holds its shape in the jar. Very hardy, though from our trials in northern Aroostook County, not quite as hardy as Patten. Appears to be fireblight and scab free. Z3. **ME Grown.**

244A Nova, \$29.25

Patten Late Summer. Orel 15 x Anjou. CG Patten intro, Iowa St U, 1922. The best-quality large hardy pear available. Very good fresh eating with sweet "high flavor." Fine-grained soft flesh has minimal grit cells. Vaguely reminiscent of Bosc in size and shape. Good canning pear. Tree is extremely adaptable, growing all over the Northeast. Long willow very flexible branches won't break even under the weight of its heavy crops. Fared incredibly well during the cold "test winter" several years ago when hundreds of northern Maine pear trees died to the roots. Extremely hardy and highly recommended for coldest districts. A good pollinator for other varieties. Scab resistant. Z3. **ME Grown.**

245A Patten, \$29.25

Seckel Late Summer. Seedling near Philadelphia, PA, early 1800s. Sometimes called **Sugar Pear**. Often considered the best-flavored of all pears; even the skin is delicious. Small obovate fruit is yellowish-brown russeted with slight red blush.



Juicy, spicy, distinctive and aromatic. Eat ripe off the tree or pick firm and ripen later.

We use Seckels to make our baked pear sauce. It's wonderful. Very productive annual-bearing large tree, easy to grow. The most reliably bearing pear tree we have in our home orchard. Scab and fireblight resistant.

Will not pollinate Bartlett. Z4.

ME Grown.

246A Seckel, \$29.25

Stacyville Late Summer. Unknown origin. Stacyville, ME. Medium-sized obovate obtuse-pyriform pears are light yellow with an orange to greyish-red blush. The sweet fruit has a delicious citrusy aftertaste. Although the fruit is good fresh eating, we prefer to use it as a cooking pear. Precocious and productive. Our tree gives us large crops most years. Long ago, friends told me about the pear and insisted that I make the trip to Stacyville in southern Aroostook County. When I finally saw it myself, I thought that the 50' vase-shaped tree was an elm. That tree, held together with cables, was extremely old but still bearing huge crops. Appears to be self-pollinating. Disease resistant, extremely hardy and very vigorous. Does not keep for long; use them up quickly! Rare. Z3. **ME Grown.**

248A Stacyville, \$29.25

Summercrisp Midsummer. MN N33201 (Gaspard No. 5). Brought to the Minnesota Horticultural Research Stn by John Gaspard in 1933, likely discovered as a wild seedling. U Minn, 1986. Large obovate acute-pyriform very sweet dessert and canning pear with green skin and a red blush. Ripens in August in Maine. Eat them fresh crisp, can them in quarters, and juice the rest. Precocious annually bearing tree, medium-sized with typically conic habit. Considered the hardest variety in the Minnesota collection. Free from fireblight. Z3. **ME Grown.**

249A Summercrisp, \$29.25

Washington State Fall. Unknown parentage. Discovered many years ago on a Washington State University field trip in the mountains of the Northwest. Introduced to me by old-timer Len Alexander of Chelsea, ME. It was Len's favorite for canning. Flavorful, firm but melting with slightly grainy flesh, not as juicy as his other pears. Remains pure white in the jar and doesn't get soft. According to Len, it also makes a pear cider that's "just like drinking syrup." The orangey-colored fruit with its long tapering neck resembles Bosc in form. Pick in October and let the fruit sit until early November when the texture becomes soft. Z4. **ME Grown.**

253A Washington State, \$29.25

Yellow Huffcap Fall. Ancient English perry pear. Unknown origin, possibly from Herefordshire, likely well before 17th or even 16th c. Small oval yellow-green russeted fruit under 2" in diameter. Not for fresh eating. Medium sharp and astringent with high acidity and medium tannin. According to Craig Campbell of Tieton Cider Works in Yakima, WA, Yellow Huffcap makes the best perry. All our perry scionwood comes from Craig this year. Z4.

255A Yellow Huffcap, \$29.25

Asian Pears *Pyrus pyrifolia* have been grown in China, where there are thousands of named cultivars, for more than 2000 years. They are long-lived and bear young. Asian pears differ from European pears: they are crisp and very juicy, sweet and mild with a nutty background, and are roundish in shape. **Although partly self-fruitful, pollinators are recommended.** The varieties we offer will pollinate one another. Some European pears, notably Bartlett, will also act as pollinators.



Because they set heavily, thin the crop once or even twice during the first two months after bloom to ensure large fruit. Unlike European pears, they should be tree-ripened. When the seeds are black, the pears are ready to pick. They ripen in late summer and keep several weeks with refrigeration.

Cultural requirements are similar to European pears. Although they are usually considered a Zone 5 plant, many of us in Zone 4 are having bountiful crops. (3-6' trees)

Hosui Late Summer. [Ri-14 (Kikusui x Yakumo) x Yakumo] National Horticultural Research Station, Tsukuba, Japan, 1972. Large round-oblate long-stemmed fruit with medium-thick skin covered with glowing yellow-orange-golden brown russet and numerous light-russet dots. Firm crisp fine-textured juicy mild subacid yet sweet rich-flavored white to off-white flesh is considered by some to be the best-flavored of all Asian pears. Standard commercial variety. Will store for a month. *Hosui* literally means 'much water.' Medium-sized very vigorous productive tree. Susceptible to fireblight. Z5.

269A *Hosui*, \$29.25

Niitaka Late Summer. Amanogawa x Imamura-Aki. Akio Kikuchi intro, College of Agriculture, Tottori, Japan, 1927. Large roundish orange-brown russeted fruit with sweet crisp juicy flesh. Described by The FruitGuys as having "so much juice that when you eat them you will need a napkin nearby. The Niitaka pear is candy-sweet with aromatic flavors of caramel and butterscotch." Great for fresh eating and canning. Medium to low vigor, very upright highly productive tree. Some say the flowers are pollen-sterile, other sources disagree, but Niitaka sets fruit well when cross-pollinated with other Asian varieties or Bartlett. Ripens after Hosui. Stores two months. Susceptible to fire blight. Z5.

270A *Niitaka*, \$29.25

Shinko Fall. Nijisseiki seedling, Japan, 1941. *Shinko* means 'new success' in Japanese. Medium-large lumpy round brownish russeted fruit. Yellowish flesh is sweet, crisp and juicy, with very good flavor. Ripens late and stores up to three months. Moderately vigorous precocious annually bearing tree. In addition to the other Asian pears, Bartlett is also a good pollinator for Shinko. Fireblight resistant. Z5.

271A *Shinko*, \$29.25

Shinseiki Late Summer. Nijisseiki x Chojuro. Teiji Ishikawa intro, Okayama Prefecture Ag Exp Stn, Japan, 1945. Medium-sized round-oblata light to medium-bright yellow fruit, with little to no russetting. Flesh is white, crisp, sweet and mildly tart with lots of juice. In English *Shinseiki* means 'new century.' Keeps about three months in storage. Dense spreading precocious productive tree. Cold hardy. Disease resistant. Z5.

272A *Shinseiki*, \$29.25

Top-Quality Orchard and Horticultural Supplies Available Year-round!

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- And more!

Both Organic Growers Supply and Fedco Seeds warehouses are now open Tuesday, Wednesday and Thursday from 9 to 3 year-round.
(Holidays and exceptions noted on our website.)



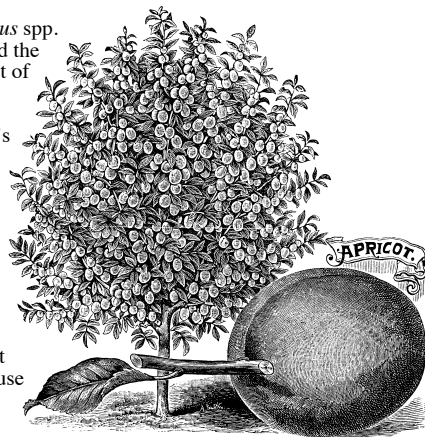
Stone Fruits *Prunus* spp.

are widely cultivated around the world and adaptable to most of New England. Not highly particular as to soils.

Clingstone means the fruit's flesh clings to the pit (or stone) and a **freestone** pit drops away from the flesh.

Apricots *P. armeniaca* are native to central Asia, cultivated there for about 4000 years. Apricots are only marginally hardy in northern New England.

Large crops are possible but uncommon in Maine. Because they bloom very early, they are often planted with northern exposures to delay flowering. The zone rating should be viewed as an approximation because much depends on your site. We are on the lookout for reports of hardy trees in Maine and other northern locations. Please let us know if you've had success.



With the help of apricot expert Bob Purvis, we have located the three high-quality varieties listed below. Plant 15-20' apart. **Self-pollinating.** (3-6' trees)

Brookcot Summer. BF #7-3. *P. mandschurica* seedling. Strathmore, Alberta, 1980. Small fruit with good flavor though not as firm as Westcot. Consistently productive. Along with Debbie's Gold and Westcot, highly recommended for coldest districts where apricots have consistently failed. Blooms later than both Debbie's Gold and Westcot. This may be a plus, as one of all apricots' fatal flaws is early blooming. Extremely hardy. Has survived -48°. Upright tree form. Probably Z3.

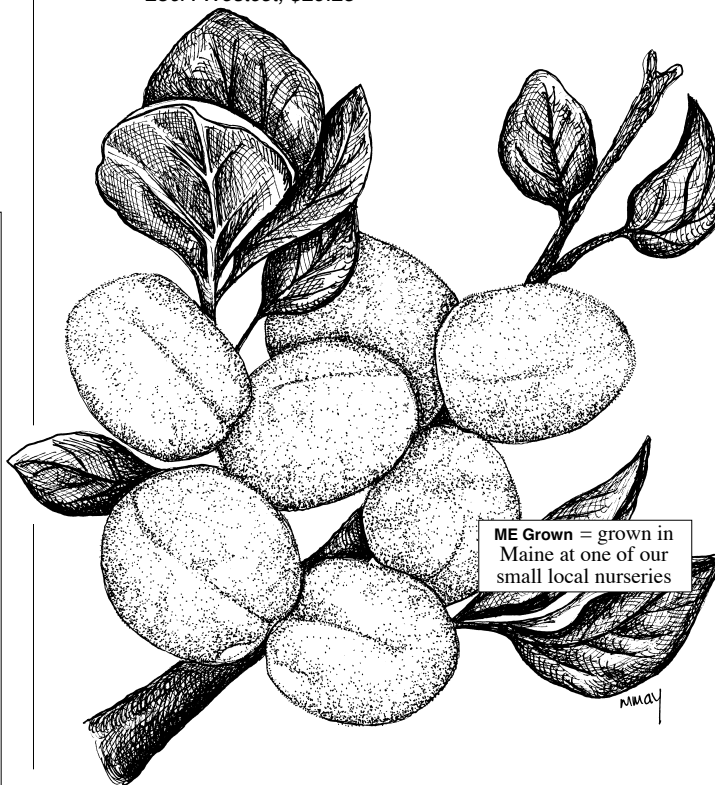
278A *Brookcot*, \$29.25

Debbie's Gold Summer. *P. a. sibirica* seedling. Aubin Nurseries, Carman, Manitoba, about 1980. Pale orange-yellow slightly flattened small fruit. Annual bearer. Similar to Westcot but a bit sweeter. Vigorous somewhat upright and moderately productive tree. Blooms later and fruits later than Westcot. While not as hardy as Westcot, still extremely hardy and highly recommended for coldest districts. Probably Z3.

279A *Debbie's Gold*, \$29.25

Westcot Summer. Scout x McClure. Introduced by Les Kerr, Agriculture Canada, Morden, Manitoba, 1982. Small roundish fruit, yellow-orange with a red blush. Smooth juicy freestone flesh with a mild sweet flavor. Firmer than Debbie's Gold. Vigorous upright spreading productive tree. Blooms a day earlier and fruits before Debbie's Gold. Probably hardiest of the apricots we're offering this year. Pits also the largest! Z3.

280A *Westcot*, \$29.25



ME Grown = grown in Maine at one of our small local nurseries

Sweet Cherries *P. avium* generally grow into large trees although the flowers are tender and fruiting can be iffy in Maine. We are currently testing some of the hardiest varieties and hope to have more of them available in upcoming years. See descriptions for pollination requirements. (3-6' trees)

BlackGold Summer. NY 13791 (Stark Gold x Stella) NY Station, 2001. Also known as **Ridgewood**. A new and highly admired sweet cherry. Large beautiful glossy dark red heart-shaped sweet fruit of very high quality. Upright spreading growth habit. Much more adapted to eastern U.S. conditions than Bing cherry and other "western cherries." Late blooming and very hardy. Survived -33° in SW Minnesota. Self-pollinating. Disease and crack resistant. **PVP. Z4.**

284A **BlackGold**, \$29.25

Kristin Summer. NY1599 (Emperor Francis x Gil Peck) Geneva, NY, 1982. Large very dark red or purplish-black fruit. Firm juicy red flesh is rich, sweet and delicious. Good resistance to fruit cracking. Tested in Montana, New York and Norway (the country, not the town in western Maine). Considered to be relatively hardy for a sweet cherry, possibly including protected areas of Zone 4. Ripens in mid-July. Requires a second variety for pollination. Z4/5.

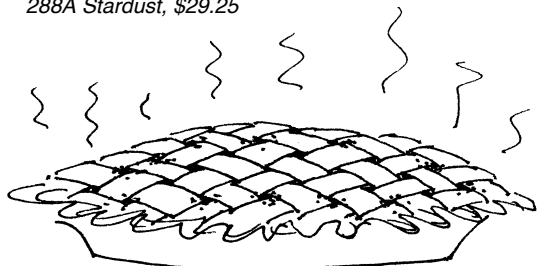
285A **Kristin**, \$29.25

Rainier Summer. Wash.P1-680 (Bing x Van) Harold W. Fogel intro, Washington Ag Exp Stn and USDA, 1960. Classic dessert cherry. Very large fruit, light yellow skin with red blush. Firm fine-textured flesh with a distinct delicious flavor. Colorless juice. Similar to Bing. Good fresh or canned. Quite resistant to cracking. Ripens midsummer. Vigorous productive tree. Early to come into bearing. One of the hardiest sweet cherries. Requires a second variety for pollination; good pollinators include Bing, Van and Sam. Z5.

287A **Rainier**, \$29.25

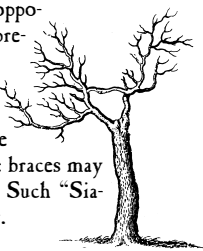
Stardust® Summer. 13N0770 (2N-63-20 x Stella) Summerland Research and Development Center, Summerland, BC, Canada, 2009. Newly released high-quality dessert cherry. Very productive, exceptionally large heart-shaped firm fruit, with a bright red blush predominating over the yellow ground. Good-to-excellent fresh eating though less sweet and flavorful than Rainier. Cream-colored flesh and clear juice. Ripens mid-late season, a few days after Rainier, extending the season. Upright spreading vigorous tree. Frost tolerant and cold hardy. Self-pollinating. Fruit more tolerant to bacterial canker and fruit cracking than Rainier. Z5.

288A **Stardust**, \$29.25



TO STRENGTHEN FRUIT TREES Fruit and ornamental trees will sometimes so form their crotches as to split down under a heavy load of fruit or in violent wind. This evil can be obviated by inarching or cross-grafting. Take a vigorous shoot, in spring, and insert one end under the bark of the main stem and the other under that of the opposite branch. Tie the branches firmly together, to prevent slipping apart in windy weather. Or, instead of taking a separate cion, a growing sprout may sometimes be found near the place needing to be strengthened, and by cutting off the top it may be inserted under the bark of the opposite limb. These braces may be put in every few years, as the tree needs them. Such "Siamesed" trees are quite interesting objects to look at.

- from *American Agriculturist*, 1864



Pie Cherries *P. cerasus* are called "sour," but they're delicious enough to eat right off the tree. They fruit in early to midsummer and don't mind heavy soil. They are especially good in pies. They are generally divided into two groups: **Morello** types have dark red spherical fruit, dark juice and relatively small compact trees. **Montmorency** (or Amarelle) types have light red slightly flattened fruit, clear juice and medium-sized somewhat open trees.

Pie cherries are significantly harder than sweet cherries but can be frustrating to grow. Although the trees are fully hardy in Zone 3, flower buds may be damaged in colder winters. Some growers in Maine have reported large harvests only to have their trees die unexpectedly a year or two later. We regularly hear reports of excellent crops, so we know it can be done. Our hope is to find pie cherries that will be consistently healthy and productive. We are very interested in your successes and failures. If you have had experiences you think might be useful to others, please be in touch. **Pie cherries are self-pollinating, and do not require another variety for pollination.** Plant 15-20' apart. (3-6' trees)

For other fruits called "cherries," see *Cornus mas*, Cornelian Cherry, p 41; *Prunus x kerrasis*, Carmine Jewel dwarf sour cherry, and *Prunus tomentosa*, Nanking Cherry, both on p. 46.

English Morello Summer. Netherlands or Germany, before 1860. Sometimes called **Grosse Cerise a Ratafia**, **Grosse Lang Lothkirsche**, **Griotte du Nord**, **Morris** and **Colorado Morello**. Very dark red-black skin. Dark red flesh and juice. Excellent culinary cherry, recommended for pies and all other cookery. Ripens late, after Montmorency. Distinctive small roundish tree with drooping branches. Brown rot resistant. One of the most famous of all pie cherries. Despite the name we know it by, it is thought to have originated on the Continent, eventually finding its way to England and then to North America. Z4/5.

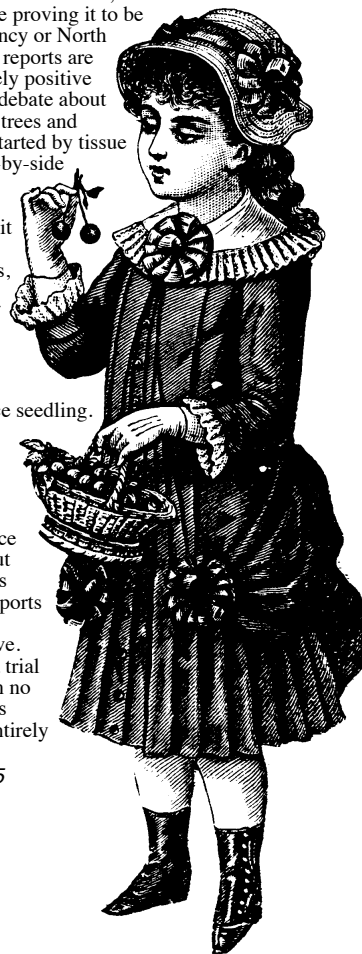
292A **English Morello**, \$29.25

Evans Mid-Late Summer. Unknown parentage. Edmonton, Alberta. Also called **Bali**. Rescued from obscurity in 1976 by Dr. Ieuan Evans for whom it was named. Popularized in recent years by Bill MacKentley of St. Lawrence Nurseries. Hardiness reports are inconsistent, but our own Aroostook County trials are proving it to be harder than Meteor, Montmorency or North Star. Cropping and fruit-quality reports are also inconsistent. Some extremely positive and others not so. There is also debate about the differences between grafted trees and "own root" specimens usually started by tissue culture. We are now doing side-by-side trials in four Maine locations to see if we can sort that all out. Large crops of Morello-type fruit are possible and the fruit is excellent for eating, jams, jellies, pies, dark red juice and wine. Naturally dwarf tree, tolerant of a wide range of soils, although prefers light fertile soils. Z3.

293A **Evans**, \$29.25

Mesabi Summer. Bing x chance seedling. (Sweet x sour cherry) Duluth, MN, 1964. Red skin and lighter red flesh with clear juice. Considered to be a sour cherry, but sweeter flesh than other pie cherries. Recommended for sauce and pies. Tree will grow to about 10-14'. We became very curious about Mesabi when we heard reports of 20-year-old trees in Maine remaining healthy and productive. About ten years ago we began a trial on our farm. Our tree has shown no dieback and is fruiting again this summer. It has also remained entirely disease free. Z4.

295A **Mesabi**, \$29.25



Meteor Summer. MN 66 (Montmorency x Vladimir) U Minn, 1952. Bright scarlet roundish-oval fruit. Translucent bright yellow flesh and clear juice. Mildly acid flavor. Very good eating right off the tree. Also good for pies, canning and freezing. Easy to pit. Excellent dried. Has proven to be a consistent producer in some locations but susceptible to brown rot in others.



In coldest districts cropping has been inconsistent and hardiness questionable. In our Aroostook County test orchard, trees died to the ground after temperatures of -38° : not as hardy as Garfield Plantation. However, we still recommend it from central Maine south, Zones 4–6, where some growers are having great success with Meteor. Ripens mid-July in central Maine. Reaches 12–16'. Z3.

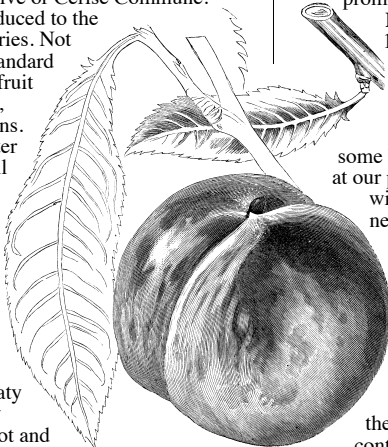
296A Meteor, \$29.25

Montmorency Summer. Seedling of Cerise Hâtive or Cerise Commune. Montmorency Valley, France, before 1600. Introduced to the U.S. about 1830. The most famous of all pie cherries. Not widely grown in Europe or Russia but long the standard of excellence in the U.S. Firm-fleshed bright red fruit makes a clear light pink juice. Surprisingly hardy, though not as hardy as Garfield Plantation or Evans. Our Aroostook County test orchard trees fare better than Meteor, but just barely. Should do really well from central Maine south. Appears to be resistant to brown rot. Vigorous productive medium-sized upright-spreading tree tolerates a variety of soils. Parent of Meteor. Z3/4.

297A Montmorency, \$29.25

Northstar Summer. MN 58 (English Morello x Serbian Pie #1) U Minn, 1950. Morello-type cherry can be eaten fresh when ripe. Large roundish heart-shaped fruit with a small stone. Dark glistening mahogany-red skin. Dark red meaty tender juicy flesh has pleasantly acid flavor. Very productive. A natural dwarf. Resistant to brown rot and cracking but may not be long-lived in some locations. Z3.

298A Northstar, \$29.25



Peaches *P. persica* Northern New England peach trees can do very well. They bear young and so heavily that they may break branches if unthinned or unsupported. Trees may also die unexpectedly at any age. Up here peach trees took big hits the last few winters. Some of the trees out in the open at our place died to the ground. The survivors got pretty beat up. However, the young espaliered peach trees planted against the south side of our house look great.

Peaches are usually unaffected by pests or diseases in northern areas, the occasional exception being **peach leaf curl**. PLC is not a fatal problem but does need to be controlled if you get hit with it. Look for crinkled or puckered foliage in spring. Remove affected leaves and compost them. Spray the tree early the following spring while it is still dormant (before any buds open!) with lime sulfur or copper. Onion, garlic or horsetail spray while leafed-out may also be effective.

Peaches fruit on last year's growth! Prune your peach trees in May, once they leaf out. Trim off any dead branches and leave most or all of the live wood. Never prune off all your new growth. If your tree becomes leggy, make a few bold cuts back to a vigorous branch closer to the trunk. That will promote even fruiting throughout your tree.

Peach trees do not need a second tree for pollination. Plant 15–20' apart. (3–6' trees)

Garnet Beauty Early. Sport of Red Haven. Ruthven, Ontario, 1958. A sport (mutation) of Red Haven discovered by Garnet Bruner in 1951 and introduced seven years later. Medium-to-large yellow-fleshed semi-clingstone fruit with excellent flavor. Causing some buzz in northern peach-growing districts. We have two trees on trial at our place. The earliest peach we offer; ripens 12 days before Red Haven with similar hardiness. Vigorous and productive tree. Good bud hardiness. Recommended for colder districts. Z4/5.

302A Garnet Beauty, \$29.25

Lars Anderson Early. Uncertain origin. Pastor Chuck Orchards, Cushing, ME. Large juicy sweet yellow-fleshed freestone fruit. Lars Anderson's son-in-law Waite Maclin (AKA Pastor Chuck) brought this tree to our attention several years ago. Waite described the fruit to me as "tasting just like a peach should taste."

When I give them away to friends and neighbors they think the peaches have been purchased in the South." Lars Anderson planted the tree on the Maine coast about 1965. He died in 1981 but the family continued to maintain the peach, even after a huge 1982 nor'easter blew the tree to the ground and split it in half. After the old tree finally succumbed in 2009, Waite sent us a monogrammed "slice" of trunk which we display on our mantle. Currently being tested in Zone 4, but for now, it should be considered a Zone 5 plant. **ME Grown.**

303A Lars Anderson, \$29.25

Polly Mid. Probably a cross of Bailey and *P. davidiana*. SA Beach and TJ Maney intro, University of Iowa, Glenwood, IA, 1934. Also known as Polly Peach. Medium-sized high-quality white-fleshed freestone fruit. Whitish skin with a reddish blush. Reliable cropper. Resembles the famous Champion, long the standard for white-fleshed peaches. Blooms later in the season. Considered the hardiest white-fleshed peach. No one knows the origin of the name. We bet it was inspired by Bertolt Brecht's infamous Polly Peachum, wife of the even more infamous Macheath—Mack the Knife. Was the apple named after him? Z4/5.

305A Polly Peach, \$29.25

Red Haven Early-Mid. Halehaven x Kalhaven. MI Ag Exp Stn, 1940. Considered hardy, but not as hardy as Reliance. Medium-sized round fruit with beautiful red and golden-yellow skin and sweet firm fine-textured yellow flesh. Non-browning. Excellent for eating, freezing, canning, shipping. Probably the best-flavored peach we offer; also the world's most widely planted freestone peach. Hardy buds; vigorous highly productive disease-resistant spreading trees are tolerant to bacterial spot. Z5/6.

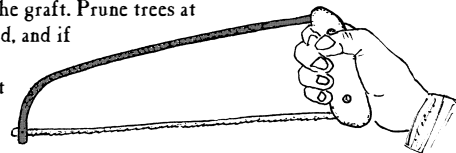
306A Red Haven, \$29.25

Reliance Early-Mid. Open-pollinated seedling of Minn PHO 4559 x Meredith. NH Ag Exp Stn, 1964. Considered the hardiest peach. Medium-sized, roundish, freestone. Rather dull red blush over greenish yellow. Bright yellow flesh, soft and juicy. Flavor usually considered fair, but those who grow it in Maine love it. Often produces large crops. Bears at an early age. May have some resistance to peach leaf curl. Z4/5.

307A Reliance, \$29.25

RENOVATING OLD PEACH TREES When peach trees get large and over-grown, or when they are apparently going backward from age, they can again be renewed by cutting off the whole top, at the collar next the roots, or at the first branching limbs, when a great quantity of shoots will put out and form handsome clumps, and bear well... Cultivated kinds should be cut above the graft. Prune trees at the opening of the bud, and if you wish to be nice about it, cover the cut with grafter's wax, tar, or oil paint.

- from *The Genesee Farmer*, 1831



WINTER WORK IN THE ORCHARD

Outdoor work is confined to a few operations and the horticultural calendar is of necessity brief. The nurseryman can now be preparing for his spring sales. Trees temporarily heeled in should have their roots well covered. Those who intend purchasing trees for planting in spring should send orders early, as in all well regulated establishments they are filled in rotation, and the earliest orders are soonest put up.

Cions. Cut during mild weather, handle carefully, and preserve in damp sand or earth.

Fruit. Late sorts are to be kept as cool as possible. Remove to the cellar only when there is danger of freezing. Look over specimens ripening in the fruit room, and remove those coming in eating to a warm room to ripen up.

Cutting Back. Young nursery stock will need to be cut back and brought into shape.

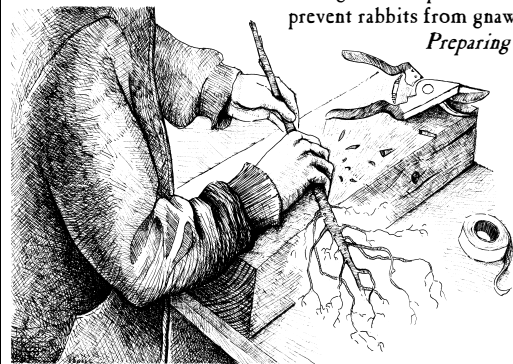
Manure and Mulch. The manuring of trees may be done any time up to early spring. Give a good coat of manure as far out as the branches extend. It has been suggested that peach trees may be kept back late enough to avoid spring frosts, by giving a heavy mulch on the roots after the ground is well frozen.

Mice and Rabbits. These often destroy young trees, especially when there is a light snow for them to work under. Tramp the snow firmly about the trunks. Shields of tin or sheet iron, stiff paper, or cloth, have been recommended. It is said that rubbing with fat pork, or any other animal fat, will prevent rabbits from gnawing the bark.

Preparing the Soil. Drain where needed, whenever the weather allows. Plow deeply. Make holes for trees in prepared soil deeply worked.

Root Grafting. This can be done in-doors.

- from *American Agriculturist*, 1864



Hybrid Plums

Prunus spp., extremely hardy crosses between various Asian and American species, may fruit even after severe winters.

Hybrid plums require a second variety for pollination. Hybrid plum pollination has been glossed over—or avoided—in virtually all catalogs and fruit-growing literature for generations. Here's what we recommend:

Plant a cluster of trees close enough together (3–6') for the branches to mingle. Our clusters number from three to nearly a dozen trees. Include native plum pollinators (*Prunus americana* seedlings or varieties) among the hybrids. With some decent sunshine during bloom, you should get good fruit set. We suggest Toka, South Dakota and Kaga as good pollinators. We also recommend planting *Prunus americana* (#312A or #211A) or *P. nigra* seedlings or grafted trees in the orchard. We include the American plum seedling in this hybrid section because it may be the best pollinator for the hybrids.

Pollination may improve with heat. Growers in warmer districts often report better success with pollination. This may be because the heat prolongs the bloom season, increasing the number of trees with simultaneous available pollen.

A long cold spring may also help with pollination. Spring 2015 was just that: long and cold. When the plums finally bloomed, they all bloomed at once. (Often the Americans bloom later than the hybrids.) For the last two years the blooms overlapped magnificently. The weather during bloom was also sunny. The result was excellent set two years in a row. Mother Nature trumps again!

Bloom times similar for all varieties. Not susceptible to black knot. (3–6' trees)

Hybrid Plum Collection A package of seven trees to begin your plum orchard. Our choice of seven different trees, including at least two pollinators, one of which will be an American Plum Seedling, *P. americana*. **Plant trees in one cluster**, with about 3–6' between trees. Let the branches grow right into one another (see above) while still keeping them pruned to allow in plenty of air and light. Trees are individually labeled.

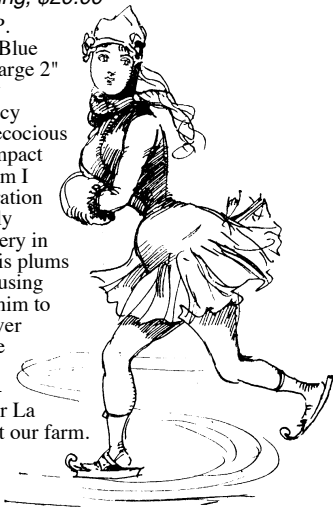
311A Hybrid Plum Collection, bundle of 7, \$185.00

American Plum Seedling *P. americana* 15–20' Seedling plum that grows in thickets and produces very decent red, yellow and orange 1" fruit, suitable for fresh eating, canning and freezing. Spectacular white bloom in spring. Red fall color. Plant singly as a graceful specimen or plant 3–6' apart and let the branches intertwine for maximum pollination. Tends to sucker freely. May be the best pollinator for hybrid plums. Plant one of these for every 3 or 4 plum trees, within 10' of each of them. This tree stock is significantly larger than #211A, plum seedling rootstock. Extremely hardy. Z3. ME Grown.

312A American Plum Seedling, \$20.00

Black Ice Midsummer. *P. Lydecker* [*P. besseyi* x (*P. salicina* Oka x *P. sal.* Z's Blue Giant)] U of Wisc, River Falls, 2006. Large 2" round early-ripening high-quality hardy blue-black dessert plum. Very sweet juicy reddish-purple semi-freestone flesh. Precocious and productive tree with a naturally compact growth habit. Bred by Brian Smith whom I visited a few years ago on a fruit exploration trip in the Upper Midwest. He graciously showed us all through his amazing nursery in River Falls. He was growing many of his plums in huge tubs, manipulating bloom time using greenhouses and coolers. This enabled him to cross species or varieties that would never normally flower together. Though we're not fans of plant patenting, we are pleased to offer his first major introduction. The literature recommends Toka or La Crescent as a pollinator. Now in trials at our farm. PVP. Z3.

313A Black Ice, \$29.25



Grenville Late Summer. (*P. sal.* Burbank x *P. nigra*) Canada Dept of Ag Res Stn, Ottawa, 1941. Large dark rosy-red clingstone fruit, resembling Burbank. Yellow flesh has excellent flavor. Vigorous early-blooming tree. Most of the hybrid plums were developed using Asian varieties crossed with *P. americana*. Grenville was bred using *P. nigra*, the extremely hardy Canada plum. Pollination requirements are the same as other hybrids, but the tree and fruit will be somewhat different from the others. Like *P. nigra*, very hardy. Z3. ME Grown.

314A Grenville, \$29.25

Kaga Mid-Late Summer. (*P. a.* x *P. simonii*) NE Hansen intro, SD Stn, 1909. Small 1" purple-black fruit. Good eating out of hand when they're dead ripe. Exceptional in jams and jellies because of the meatiness of the black flesh. This is not one of those plums that dissolves and dribbles down your chin. The most profuse bloomer in Mark Fulford's plum collection, coming right in the middle of plum season. Mark considers it to be an excellent pollinator for other hybrid plums. It also bears reliably in his Monroe, ME, orchard. Now on trial in our Palermo orchard. Dense naturally dwarf tree grows to about 10'. *Kaga* is the Sioux word for 'pitch a tent.' Z3. ME Grown.

315A Kaga, \$29.25

La Crescent Late Summer. (*P. sal.* Shiro x *P. a.* Howard Yellow) U Minn, 1923. Also known as **Golden La Crescent** or **Golden Minnesota**. Most of the hybrid plum varieties are colored with some variation of red and orange with a little purple tossed in. Yellow-skinned La Crescent is one notable exception. The beautiful roundish tender thin-skinned yellow fruit is sometimes blushed with a little pink. Tender yellow juicy flesh of excellent quality is sweet, aromatic and suggestive of apricots. Freestone. Upright spreading vigorous tree. Z3/4.

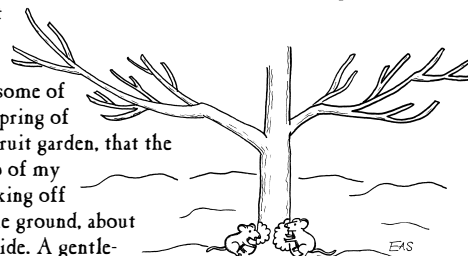
316A La Crescent, \$29.25



Pipestone Late Summer. MN 218 [*P. sal.* Burbank x (*P. sal.* x *P. a.* Wolf)] U Minn, 1942. Juicy yellow-fleshed clingstone plum with excellent sweet flavor. Tough thin skin peels easily. Large deep red fruit with a golden blush presumably named in honor of the beautiful red catlinite rock of Pipestone, MN. Home of one of the most famous Native American quarries, long considered to be a sacred site by the tribes who mined the quartzite rock for their pipes. Designated a national monument in 1937, Pipestone even makes an appearance in Henry Wadsworth Longfellow's famous 1855 poem "The Song of Hiawatha." Vigorous reliable tree. Z3.

318A Pipestone, \$29.25

MESSRS. EDITORS I wish to communicate to the public, through your paper, the result of an Horticultural experiment, which I trust may be new to some of your readers. In the spring of 1829, I found in my fruit garden, that the mice had girdled two of my young plum trees, taking off a ring of bark near the ground, about four or five inches wide. A gentleman of my acquaintance, observed to me, that the trees might be saved by splicing in pieces of bark, so as to connect the roots with the tops, & gave me directions for doing it. Being unwilling to lose my trees I proceeded by taking some pieces of limbs of the same tree, corresponding in length to the width from which the bark had been removed, and having split them, I fitted them to the bodies, (which were about an inch and a half in diameter) by flattening them and cutting square in at the ends, so as to make good joints where the bark was sound, tied them fast with strings, and hilled the dirt over them. The result was, the pieces united at both ends, and the trees have continued to grow, as though no accident had befallen them, and now bid fair to produce fruit the next season. I have since tried the experiment upon an apple tree with equal success. As similar accidents happen to trees, from mice, rabbits, calves and sheep, I can recommend the process of splicing, as by it, trees so injured, may be saved. S. Clark, Greece, [NY] Feb. 1, 1831
- from *The Genesee Farmer*, 1831



Purple Heart Late Summer. Elwyn Meader intro, Enfield, NH.

Medium-sized fruit with red-purple skin and flesh. The most delicious plum we grow. Meaty, mild and rich with no astringency. It's great, we love it, and you will, too. Origins shrouded in mystery. It was brought to the great plant breeder Professor Elwyn Meader by a fellow who passed away before Meader could ascertain the plum's origin. It also has uncertain pollination requirements and is almost certainly not your typical hybrid.

Underwood may be a good pollinator. If you have Purple Heart pollination experiences to share, please let us know. Not as hardy as other hybrids. Shows tip or even branch damage following colder winters in central Maine. Has shown susceptibility to black knot in some locations. Small tree. Z4/5.

ME Grown.

319A Purple Heart, \$29.25

South Dakota Late Summer. SD 27.

P. a. Unknown parentage. U Minn/SD Ag Exp Stn, 1949. Small-to-medium fruit has tough yellow skin with bright red bluish. Medium-firm yellow flesh is meaty, juicy, sweet. Fresh-eating quality is excellent. Fully freestone. Because of its very long flowering period and American pedigree, we recommend South Dakota as a pollinator for all hybrid plums. In our orchard it's still blooming when the other plums have dropped their flowers. Also ripens after the other hybrids are done. Developed by NE Hansen before 1907. One of Hansen's students took it to the breeding program at the University of Minnesota where it was later introduced. Vigorous tree. Z3. **ME Grown.**

320A South Dakota, \$29.25

Toka Late Summer. (*P. a.* x *P. sim.*) NE Hansen intro, SD Exp Stn, 1911. Rosy-red fruit, up to 1 1/2" in diameter, mottled with darker purplish-red and covered with a faint bloom. Grower Don Johnson's comment: "Talk about flavor: candy plum." Ed Fackler called Toka the best-flavored plum he grew in his Indiana orchard. Sweet, distinctive, meaty and flavorful. Not real juicy. Somewhat freestone. Extremely vigorous tree blooms heavily every year. Diligent pruning may be required to keep it from becoming a bit of a monster. Considered a good pollinator for other hybrid plums. Z3.

321A Toka, \$29.25

Underwood Midsummer. MN 91 [*P. sim.* x *P. sal.* Shiro] x *P. a.* Wyant] U Minn, 1921. Medium-to-large 2" dull red fruit. Firm sweet juicy golden-yellow semi-freestone flesh, very good for eating and cooking. Long picking season. Blooms earlier and longer than most hybrids and appears to be a very good pollinator for other hybrid plums, including Purple Heart. Northern Maine grower Steve Miller considers it one of his most reliable bearers. Long ripening season. Vigorous large spreading tree. Z3. **ME Grown.**

322A Underwood, \$29.25

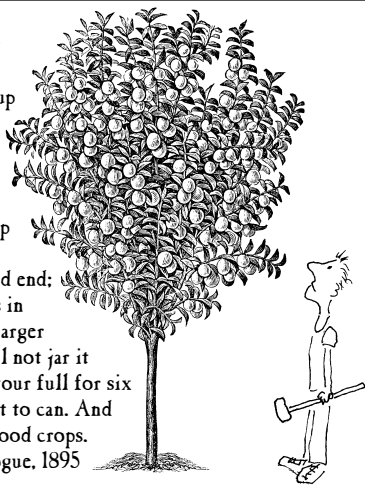
Waneta Midsummer. (*P. sal.* Apple x *P. a.* Terry) NE Hansen intro, SD Exp Stn, 1913. Released when hybrid plums were an important and commercially viable crop. Named after a Yanktonai youth who won fame in the War of 1812 and later became a great chief. Large, somewhat pointed, 1 1/2-2" reddish-maroon fruit. Sweet tender translucent orange flesh is very juicy but not dripping. Medium-thick skin, tart and easy to peel. Delicious overall taste. Hansen said of Waneta: "My belief is that in this variety I have combined the best points of the native and the Japanese plum. It is probably the largest [fruit] of over 10,000 seedlings." Early blooming healthy open spreading tree bears reliably in our orchard. Z3.

323A Waneta, \$29.25

THINNING FRUIT

I begin to jar the plum trees every morning, the earlier the better, as soon as the fruit sets, and keep it up until the stone forms. Then I thin out all I have the heart to, but not enough usually. While the trees are small you can jar with the hand, giving two or three sharp raps or pushes; as the trees get larger, I use a mallet, with a padded end; and as they get eight or ten inches in diameter, I reach up amongst the larger branches, as a rap on the trunk will not jar it enough. Try it, and eat plums to your full for six weeks, besides having all you want to can. And yet many do not do this and get good crops.

- from Green's Nursery Catalogue, 1895



European plums

P. domestica Delicious fresh and often grown commercially for prunes. A true prune is a plum that can be dried without the pit fermenting. We've heard recommendations to blanch the plums for 45 seconds before drying them. European plums produce smaller fruit and are generally not as hardy as the hybrid plums, though they can handle heavier soils and are less prone to brown rot. Unlike hybrids, they are prone to the fungal disease black knot, which looks like black chewing gum and appears on branches. While not necessarily fatal, it must be kept in check by removing and destroying infected branches. Trees grow upright and are usually trained to a central leader. Although **European plums are self-pollinating**, planting two different varieties will improve pollination. (3-6' trees)

Green Gage Mid-Late Summer. Unknown origin, maybe *P. d.* x *P. institia*. Probably Armenia, long before 1500. Also called

Reine Claude. Often considered the best of all dessert plums. Small round semi-freestone yellowish-green fruit sometimes mottled with red has tender juicy melting flesh with rich flavor. A favorite in Europe for more than 500

years. Long referred to as Armenian plum, suggesting its possible point of origin, though no one knows for sure. Found its way to Greece and Italy and then introduced into France in the early 16th c. where it acquired the name Reine Claude in honor of the wife of Francis I. Later brought to England by the Gage family. While a number of Gages have been selected over the years, Green Gage remains the original. Medium-sized tree bears heavily. Not long-lived. Fruit susceptible to cracking. Z4.

327A Green Gage, \$29.25

Mount Royal Late Summer. Chance seedling, Outremont, Quebec, before 1903. Popular plum in Quebec and the northern U.S. for many years. Also called **Mont-Royal**. Discovered by Mr. Corse in or near Montreal sometime between 1830 and 1850. Bears abundant annual crops of medium-sized roundish dark purple fruit. Often considered the sweetest of the European plums. The flesh is greenish-yellow, juicy and firm. Use fresh, dried, frozen, canned and in preserves. Medium-sized tree is open with good crotch angles and requires only moderate pruning. Z3.

328A Mount Royal, \$29.25

NY9 (Kenmore) Late Summer. [Standard (Tragedy x Sugar) x Stanley]. Tested as NY 58.900.9. Originally named Kenmore; trademarked as NY 9. Cornell Research Foundation, NY, 2003. New freestone dessert and processing prune plum. Dark purple fruit averages 1 1/2" x 3 1/2". Very good quality yellow-green flesh. A cross between Stanley and an old sweet and juicy 1911 Luther Burbank introduction called Standard. Resembles Stanley with notable improvements in productivity, disease resistance and pest tolerance. Discovered as a young seedling in one of the New York State Fruit Testing nurseries in 1971 by plant breeder John P. Watson. Finally released 32 years later. Ripens about the same time as Stanley. Z4.

329A NY9, \$29.25

Stanley Late Summer. Agen x Grand Duke. NY Station, 1926. Most popular European prune plum in America with the possible exception of 'Italian.' Excellent for cooking, eating, canning and drying. Medium-to-large oval fruits with dark blue skin. Green-yellow firm but tender juicy fine-grained sweet flesh. Reliably bearing fast-growing adaptable medium-to-large funnel-shaped tree produces healthy vigorous annual crops. Z4.

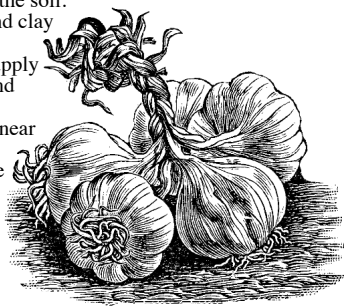
330A Stanley, \$29.25

Plum Curculio... and garlic

Plum curculio is a small pesky insect, a terrible plum and apple pest. We have read that laying sheets of cardboard under plum (and apple) trees will smother the PC pupae developing in the soil.

Many organic growers spray Surround clay powder on their trees to combat this weevil. (See the Organic Growers Supply section of the Seed catalog for this and other orcharding supplies.)

Many years ago we planted garlic near one of our apple trees and neglected to harvest all the bulbs. Now we have a small colony of garlic plants around the tree. Recent reports are touting garlic as a curculio deterrent. Anecdotal evidence suggests the garlic may be working at our place. Plant more garlic!



Small Fruits & Berries

Raspberries *Rubus* spp. We

love raspberries: fresh or frozen, in smoothies, jam and especially pie. We even like the dried foliage—best taken from the first-year primocanes—which makes a delicious and healthful tea. A leaf and fruit vinegar is very high in minerals, and the leaf tea makes a great astringent and tasty tonic. The root bark is also medicinal. Native to North America, Europe and Asia, they are usually identified as *R. idaeus* or *R. i. var. strigosus*. 53 different *Rubus* species and subspecies live in Maine.



A second variety is not needed for pollination.

Please note: Raspberries have very fine, fibrous roots. Often they do not sprout from the plant stem after planting. This is OK. Be patient! Keep them well watered and they should all break dormancy, sprout from the roots and thrive for many years to come. All of our canes are well rooted, bare root and certified virus-free.

Everbearing Raspberries bear on first-year canes (primocanes). Everbearing types are particularly desirable for northern growers because they can die (or be cut) to the ground and still produce a sizable crop the following year. In central Maine the first of these ripens in mid-late August.

Anne Late. JEF-b1 (Amity x Glen Garry) U of MD, 1998. Everbearing sweet flavorful pale yellow raspberry ripens in fall. Large cohesive conic fruit stores decently, is firmer than other yellows. Semi-vertical canes may sucker less than most everbearing types. Cut it entirely to the ground after the season is over. Resistant to phytophthora root rot. **PVP**. Z4.

334A Anne Raspberry, bundle of 10, \$29.50



August Red Late. NH R7 [Durham x NH 102 (dwarf F2 seedling x Taylor)] x NY 287 [NY 18810 (Marcy x Indian Summer) x NY 20990 (*R. strigosus* selection)] Developed by EM Meader, UNH, 1973. We are very pleased to offer this rare variety, custom-propagated for us by Nourse Farms, and grown out at North Branch Farm in Monroe. Considered the hardest of the everbearing types—the last hope when no other raspberry will survive. Medium-large crimson fruit has excellent flavor. Compact 3' bush bears earlier than other everbearers, even Polana. Productive midsummer, about Aug. 10 in central Maine. Z3.

ME Grown.

335A August Red Raspberry, bundle of 5, \$29.50

Polana Late. Heritage x Zeva Herbsternte. Research Inst of Pomology and Floriculture, Brzezna, Poland, 1991. Very early fruiting everbearing red raspberry has performed very well in our Fedco trials. Large firm berries with very good flavor on vigorous and productive short canes. Ripens in late August or early September in northern districts. According to David Handley of the University of Maine, "as near a thing to a sure bet." Easy to pick: the berries hang off the tops of the plants. Suckers freely. Z4.

336A Polana Raspberry, bundle of 10, \$29.50

PVP = Plant Variety Protected. Unauthorized propagation of the plant is prohibited. The use of PVP in the catalog is for informational purposes only and does not constitute an endorsement by Fedco of plant patenting.

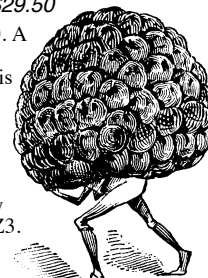
Summer-bearing Raspberries bear on second-year canes (floricanes). Midseason berries ripen around late July in central Maine.

Boyne Early-Mid. Chief x Indian Summer. Morden Research Stn, Manitoba, Canada, 1960. Round-conic medium-sized berries with an intense deep dark almost purple color. Strong aromatic tart raspberry flavor and a perfect medium-soft texture. Grower John Meader speaks glowingly of Boyne, calling it "an excellent, excellent variety. Boyne is the one to beat if you're going to introduce a new raspberry." Leaves tend to curl down over the fruit making it harder to pick if you're in a hurry. According to friends who make honey and fruit butters, there is no better raspberry for processing. Disease resistant. Extremely hardy. Z3.

337A Boyne Raspberry, bundle of 10, \$29.50

Latham Mid. MN4 (King x Loudon) U. Minn 1920. A standard raspberry for almost a century, extremely popular and widely grown. Large bright red 1" fruit is roundish, firm, a little crumbly and sprightly sweet, full-flavored and aromatic. Great for fresh eating, canning, freezing, jam, juice or pie. Ripens over an extended season making it an ideal candidate for the home garden. Canes are 4-5' tall and highly productive. Not as spiny as most raspberries. Widely adaptable and very winter hardy. Disease resistant. Z3.

338A Latham Raspberry, bundle of 10, \$29.50

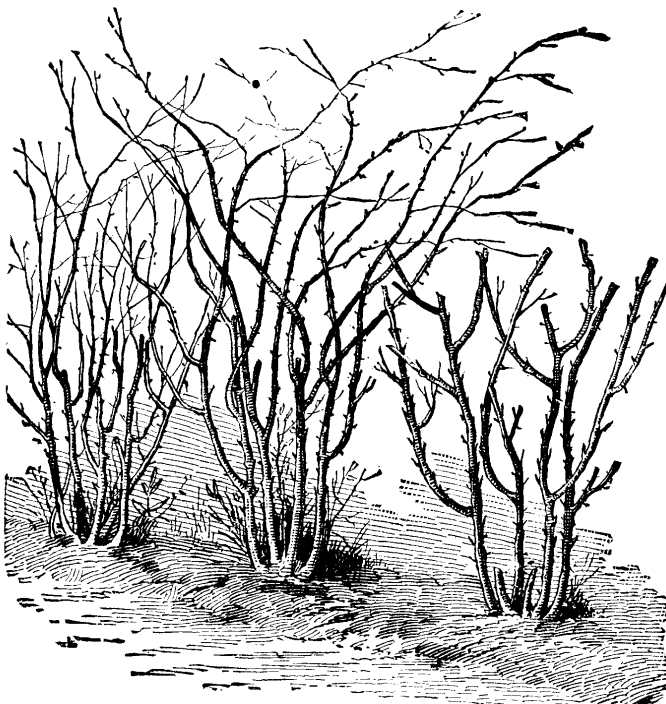


Prelude Early. NY 1009 (NY 817 x Hilton) NY Stn, 1998. Ripens very early, then produces a second small crop in the fall, just when we start to miss raspberries. Very large red conic high-quality fruit is firm and coherent. Flavor is mild with little acidity but very tasty. Vigorous winter-hardy canes. After several years of trial in his nursery, John Meader wrote, "I'd strongly recommend Prelude. It showed hardiness equal to Boyne last winter and fruits the earliest of all varieties I've observed." Suckers freely. **PVP**. Z4.

339A Prelude Raspberry, bundle of 10, \$29.50

Royalty Purple Mid. (Cumberland x Newburgh) x (Newburgh x Indian Summer) NY Stn, 1982. Their distinctive flavor is different from the red raspberries, with a hint of black raspberry. A favorite for fresh eating among those who know it. Cohesive fairly firm large berries make outstanding jam and jelly, too. Extremely robust minimally suckering plants are very productive and open-formed; the berries are eye-level and easy to pick. Ready to harvest when they are deep purple, somewhat later than the reds. Plant in hills (see sidebar). Usually considered Zone 4 but is proving itself into Zone 3 with occasional slight tip dieback. Disease resistant. Z3/4.

340A Royalty Purple Raspberry, bundle of 5, \$29.50



THE SHAPE OF WATER

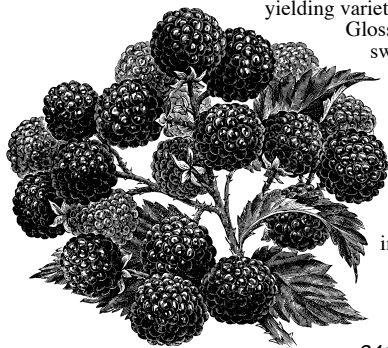
One of the main things for a fruit grower to remember is that he is selling water in attractive forms, whether in strawberries, blackberries, raspberries, grapes, apples, peaches, pears or plums. All are principally water. In fact water goes into the formation of the human system more than any other thing, and all the fruit growers have got to do is to get the water in the right shape and it will sell well.

- from Green's Nursery Catalogue, 1895



Black Raspberries bear on second-year canes.

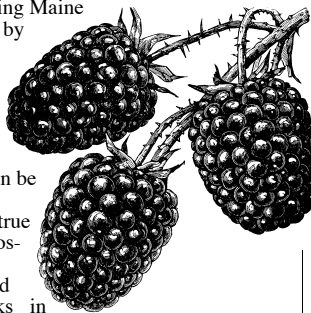
Jewel Midsummer. Bristol x Dundee. Cornell, Geneva, NY, 1973. High-yielding variety with superb quality and flavor. Glossy large firm juicy fruit with rich sweet lingering flavor. Larger than Bristol. Excellent choice for fresh eating, jams and jellies. Cohesive texture holds shape with refrigeration. Black raspberries are referred to as the King of Fruits for their high levels of antioxidants and anthocyanins, strengthening the immune system when eaten regularly. Freeze excess berries for winter to help combat colds and flu. Vigorous disease-resistant canes. Z4.



341A Jewel Black Raspberry, bundle of 5, \$29.50

Blackberries bear on second-year canes.

Nelson Midsummer. Nelson has been surviving Maine winters for at least a century. Introduced to us by the descendants of Nelson Fronk, whose 1928 family photograph taken on their farm north-east of Farmington shows the blackberries growing next to the barn. John Meader grows Nelson and calls it "exceptionally hardy," one of the most enduring blackberries he has ever grown. Tall sturdy upright inch-thick canes can be grown on posts but also do well free standing. Fruit is moderately large and quite juicy with true blackberry taste. Highly productive: 16-18 blossoms on the central stalk is the most John has ever seen on any blackberry. He gets four good pickings from his patch over two weeks in mid-August. Excellent jelly and good fresh eating. Disease resistant and certified virus-free. Like all blackberries, spreads quickly so give it room. Z4, maybe Zone 3. ME Grown.



343A Nelson Blackberry, bundle of 5, \$29.50

Agri-gel A hydrogel formulation that absorbs and holds water. The swollen crystals adhere to plant roots, reducing transplant shock. Safe, nontoxic, easy to use. Useful for garden seedlings as well as woody plants. Highly recommended for raspberries and conifers. Half-ounce packet mixed with 1-3 gallons of water will treat up to 100 cane plants, or 50 trees and shrubs. *Not allowed for organic certification.* 1/2 oz.

L654A Agri-gel, \$3.00

Raspberries and Blackberries

Cane fruits have shallow perennial roots. They prefer full sun, good air circulation and well-drained soil rich in organic matter. Avoid soils where tomatoes, peppers, potatoes, strawberries or wild brambles have grown. A well-kept patch can last 10-20 years.

Prepare planting holes by adding composted manure (15 bushels dry or 10 bushels fresh per 100 sq ft) and make each large enough to spread out the roots. Do not allow the fine roots to dry out. We suggest soaking roots in Agri-gel (#L654A) for 1-2 hours before planting. Plant 1-2" deeper than the nursery line. Mulch with a thick layer of woodchips. Fertilize liberally each spring with up to 100 lbs manure or compost, 8 lbs bloodmeal or 14 lbs soybean meal per 100 foot row. Some sources recommend additional nitrogen feeding each June and August. Plants require 2" water per week during the growing season.

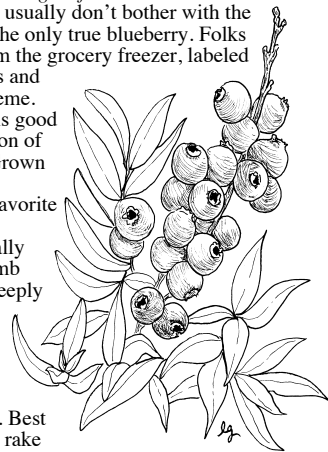
• **Everbearing raspberries:** Plant 9-15" apart. Because everbearing types bear fruit on first-year and second-year canes, you have a couple of options. In warmer districts, you can leave the first-year canes to overwinter after they fruit. The following year, you will get a light crop in early summer from those now two-year-old canes, followed by a larger crop later from the new first-year canes. In colder areas generally you would cut all canes to the ground in late fall after the leaves drop, or in early spring; new first-year canes will fruit in mid-late summer.

• **Summer-bearing raspberries:** To make a hedgerow, trellis between two wires about 3-4' off the ground and 18-36" apart. Space plants 2' apart. After harvest, prune to the ground the canes that carried fruit (or remove them the following spring). Thin the fresh first-year canes to about 3-4' apart. They will bear fruit next year. During the growing season cut back canes to 5' if they are bending over severely.

• **Purple and black raspberries and blackberries:** Plant in hills 3-4' apart, 3-4 plants per hill. Tie to a center post for support, if needed. Basic pruning is the same as summer-bearing raspberries. As they fill in, thin to 5-8 canes per hill. During the early summer, pinch back tip of first year canes to 2 1/2-3' tall. This will encourage lateral fruiting branches. You may run a wire between hills for lateral branching but this is not necessary. In the following spring, cut these fruiting laterals back to 8-12 buds.

Lowbush Blueberry *Vaccinium angustifolium* 6-24" and spreading. Blueberry growers in Maine usually don't bother with the "lowbush" distinction; to them, this is the only true blueberry. Folks from away may know these berries from the grocery freezer, labeled Maine Wild Blueberries. Though plants and berries are diminutive, the taste is supreme. Lustrous blue-green medicinal foliage is good in teas and turns an amazing combination of bronze, orange and scarlet in the fall. Grown in Maine long before Europeans came Downeast, blueberries are still a local favorite and cultivated on thousands of acres.

To speed harvesting, berries are usually raked rather than hand-picked. You comb the rake a bit into the bushes (but not deeply so!), tilt it back and the berries pop off and roll into the pan. As the saying goes, "the lighter the hand, the more berries in the pan." You will also inevitably accumulate small twigs and leaves and various other odds and ends. Best raking is done on a breezy day. Lift the rake above your pail (we use a 5 gallon bucket) and pour. Ideally the berries will stream into the bucket while the twigs and leaves flutter off in the wind. Native to northeastern U.S. Spreads by seed and rhizomes. Transplants will gradually form colonies but can be slow to get established. Z2. ME Grown.



Lowbush Blueberry Seedlings 2-yr, 4" wide bare-root seedlings from North Branch Farm in Monroe, ME. Single plants.

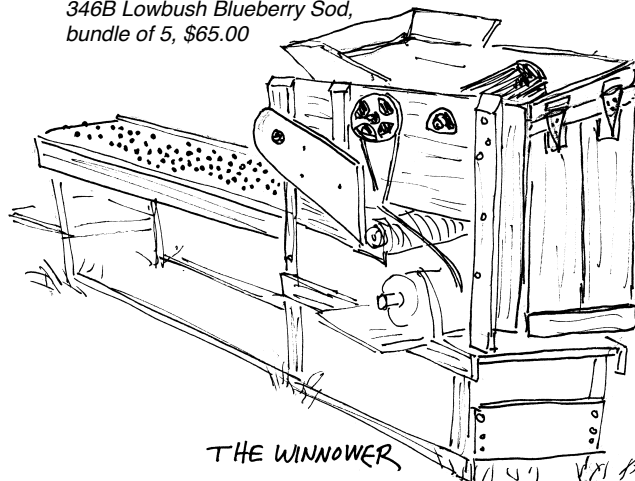
345A Lowbush Blueberry, \$13.75

345B Lowbush Blueberry, bundle of 5, \$58.00

Lowbush Blueberry Sod Squares 6x6" sods from blueberry fields of Ewing Fruit Co. in Warren, ME.

346A Lowbush Blueberry Sod, \$15.00

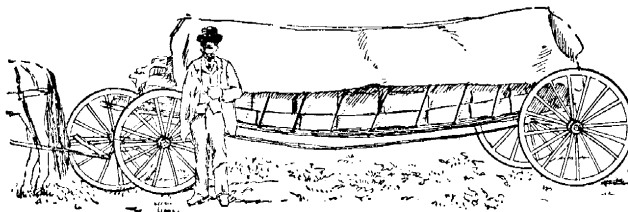
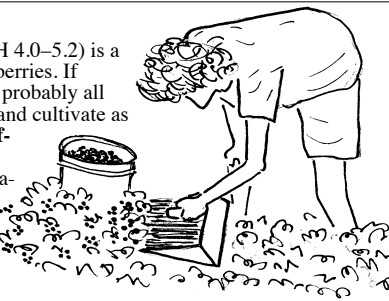
346B Lowbush Blueberry Sod, bundle of 5, \$65.00



THE WINNOWER

Lowbush Blueberries

Woody dry poor acid soil (pH 4.0-5.2) is a prerequisite for lowbush blueberries. If you've got white pine, you're probably all set. Plant 12" apart each way and cultivate as a groundcover. **Generally self-pollinating;** other blueberries nearby will help ensure pollination. Full sun is best for maximum fruit production. Keep your patch weed free, and keep it watered while it's getting established.



"Buckboard" used in Maine to carry Blueberries from the fields to the cannery.

Highbush Blueberries

Vaccinium corymbosum are native to North America. Many of Maine's lakes are lined with massive stands of highbush blueberries. Grazing the shore requires only time and a suitable vessel; we prefer kayak or canoe.

The beautiful vigorous shrubs are extremely easy to grow at home, productive and reliable. By planting several varieties, you can harvest berries from early July through most of August. Bears first crop 3–7 years after planting. Productive for at least 20 or 30 years. Berries may turn blue before they reach their peak flavor. Leave them on the bush until they are fully ripe. Check a few before you pick them all! **Two varieties are required, three or more recommended, for pollination.** (1-2' 2-yr transplants)

Bluecrop Early-Midseason. GM 37 (Jersey x Pioneer) x CU-5 (Stanley x June) USDA, NJ, 1952. Medium-sized firm subacid fruit; very light blue berries of high dessert quality, resistant to cracking. Medium-large open clusters. Vigorous upright 4–6' consistently productive bush. Ripens over a long season. Z4.

347A *Bluecrop Blueberry*, \$13.75

Blueray Early-Mid. 4-6' (GM 37 x CU-5) USDA, NJ, 1955. Large firm dark blue berries of high dessert quality in small clusters. Considered the best-tasting by nearly everyone who grows highbush blueberries. Very vigorous bush with upright spreading habit. Consistently productive. Z4.

348A *Blueray Blueberry*, \$13.75

Elizabeth Mid-Late. 5-6'. Introduced in 1966 by Elizabeth White of Whitesbog, NJ, who found numerous heavy-fruited strains from wild bushes that became the parents of many of today's cultivars. Friend and avid fruit grower Dan Kennedy of Seasmont, ME, grows 17 different varieties of highbush and rates it and Blueray as his top favorites. He describes the bushes as bearing dense clusters of large fruit with a balanced flavor of sweet and tart. Stores well in refrigeration. Large vigorous upright shrub has strong spreading lateral branches. Z4.

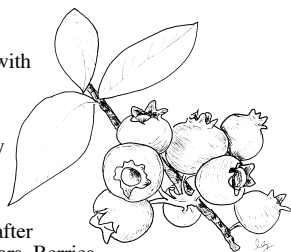
349A *Elizabeth Blueberry*, \$13.75

Elliott Very Late. 4-6'. Burlington x [Dixi x (Jersey x Pioneer)] USDA, 1974. A real season-extender. Considered the latest of all varieties, Elliott ripens two weeks after Jersey. Loose clusters of medium-sized very firm mild-flavored light blue berries. Slightly spreading somewhat bushy upright plant is highly productive every year, in part because it blooms late and escapes spring frosts. Z4.

350A *Elliott Blueberry*, \$13.75

Jersey Mid-Late. 5-7'. Rubel x Grover. USDA, 1928. The beloved old standard of blueberry introductions to which new varieties are compared. Medium-to-large dark blue berries in large loose clusters. Vigorous erect hardy bush. Productive, adapted to a wide range of soils, highly praised, easy to grow and suited to the New England climate. Z4.

351A *Jersey Blueberry*, \$13.75



Contact with nature affords a better tonic and nerve than the pharmacist can compound. A vacation in the country brings rest and recuperation to the businessperson and professional, but not everyone can take it. If one be so fortunate as to possess a garden it may afford them a vacation for an hour at any time. In such a garden bush-fruits may reach their highest perfection. Every plant and flower becomes a companion and a friend. Flowers then acquire a tint and perfume and fruits a flavor and piquancy which no others can equal.

- from *Bush Fruits* by Fred W. Card, 1898

Meader Early-Mid. 5-7'. Elwyn Meader intro, Univ of NH Ag Exp Stn, Durham, NH, 1971. Medium-large medium-blue fruit with excellent flavor. Sweet with a hint of acid. Vigorous upright open lightly spreading form. Very hardy. Z4 or even Z3.

352A *Meader Blueberry*, \$13.75

North Country Mid. 1-2' (G65 x Ashworth) x R2P4 U Minn, 1983. Lowbush-highbush cross with bright blue small-medium fruit. Mild sweet wild-blueberry flavor. Tough adaptable vigorous plants are dwarfing and considered one of the most ornamental varieties. Bright red fall foliage. Snow protection increases yields. Z3.

353A *North Country Blueberry*, \$13.75

Patriot Early-Mid. 4'. US3 (Dixi x Michigan LB-1) x Earliblue (Stanley x Weymouth) U Maine, 1976. Partial lowbush parentage. Adaptable to many soil types. Productive berry will fill your super bowl every year! Large firm berries with excellent flavor. Upright open spreading bush. Tolerant or resistant to some strains of soil fungus. Hardy. Z3.

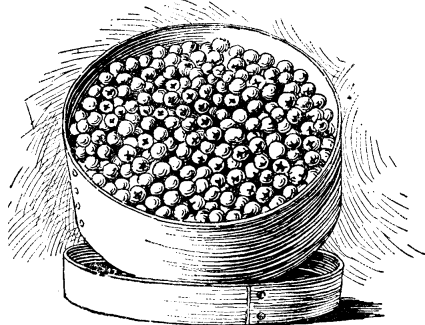
354A *Patriot Blueberry*, \$13.75

Rubel Mid. 5-7' Wild strain discovered by Elizabeth White, Whitesbog, NJ, early 1900s. Small firm light blue tart berries are fantastic for processing, baking into pies and muffins, or fresh eating. White asked local townspeople to find 100 of the largest fruiting bushes—the best ones she named after those who found them. Rubel is named for Rube Leek. A hundred years later this variety is still being cultivated with research showing it to be one of the highest in antioxidants for all highbush types. Consistent producer. Z4.

355A *Rubel Blueberry*, \$13.75

St. Cloud Early-Mid. B19 (G65 x Ashworth) x US3. U Minn, 1990. Lowbush-highbush cross with firm dark blue medium-large highly flavorful sweet fruit. We're excited to see how this newer offering compares to our old favorites. Crisp texture, stores well in refrigeration. Foliage turns orange in fall. Short spreading canes reach 4' at maturity. Z3.

356A *St. Cloud Blueberry*, \$13.75



Highbush Blueberries are shallow-rooted and like light acid soil (pH 4.0–5.2) with plenty of organic matter, good drainage, and plenty of water. Space them 3–6' apart (3' for the shorter varieties) in rows 8–10' apart. If your soil is lacking acidity, add peat, woods humus, or 1 cup elemental sulfur per bush.

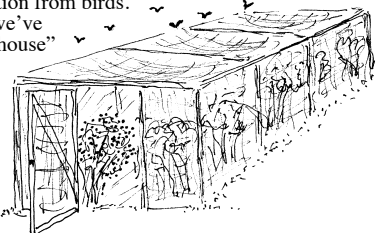
Dig a hole at least twice the size of the root ball. If you use peat, soak it and then mix it with soil at a one-to-one ratio. Plant at the same depth as in the nursery. Do not let the roots dry out! Pack the soil firmly and water thoroughly. Plants require at least 1" water per week during the growing season. On most soils, blueberries require regular applications of nitrogen. In the spring, apply a high-nitrogen fertilizer, such as 1/2–1 qt composted hen manure per plant.

Fruit is produced on vigorous one-year shoots off healthy canes. As canes age they become twiggy and less productive. Begin pruning after three years. Head back long pieces of new growth for a bushier plant. Cut out weak or dead canes and dead tips. Each bush should be allowed to grow 6–10 canes varying in age from 1–6 years old. Thereafter, remove dead canes and those over 6 years old and encourage new replacement canes. Bushes with regular moderate pruning produce the most berries.

Berries may need net protection from birds.

One of the best arrangements we've seen is John Meader's netted "house" in Buckfield. He has about 40 bushes growing under a framework made of posts and 2x4s and completely covered in netting.

Competition with grass may weaken and kill your blueberries. Mulch heavily (3–6" or more) every year with pine needles, cardboard, wood chips, hay, sawdust, even old slab wood. When using sawdust you may want to compensate by adding extra nitrogen.



Strawberries *Fragaria x ananassa* A major highlight of every summer is picking strawberries. In central Maine strawberry season usually coincides with the summer solstice. Although no one knows where the common name *strawberry* originated, idle speculation has it that it comes from the practice of putting straw down between the rows for pickers to sit on while they sample the fruit and catch up with each other.

Modern strawberries, developed about 1830, are a hybrid of *F. chiloensis* (native of Chile) and *F. virginiana* (native of North America). Royce Bringhurst of the University of California-Davis developed day-neutral, or everbearing, strawberries from wild plants found in Utah's Wasatch Mountains. He crossed these with modern commercial varieties and introduced the first everbearers in 1980.

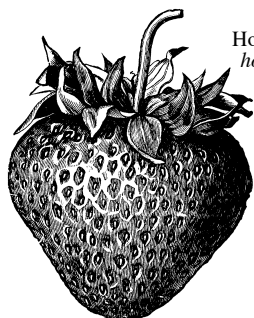
50 plants will plant from 50–100'. (virus-free bare-root stock)

Albion CN220 (Diamante x Cal 94.16-1) UC Davis, 2006. **Everbearing** strawberry with very large conical firm fruit, excellent flavor and good shelf life. High yielding though requires more water and nutrients than other everbearers. Alice switched to Albion from Seascape and never looked back. She says, "The best Seascape will have better flavor than the best Albion, but Albion is definitely no slouch for flavor. It continues to bear reliably and produce large delicious berries in hot weather, when Seascape will stop producing, button up, or become bitter." Plants are large and need extra space to produce bigger berries. Resistant to verticillium wilt, phytophthora crown rot, and anthracnose crown rot. **PVP**. Z4.

L358A Albion Strawberry, bundle of 50, \$19.00

Galletta Early. (NCH87-22 x Earliglow) NCSU, 2010. Newer variety gaining popularity. Large glossy bright red fruit with good flavor. One of the earliest to ripen, even before Earliglow, with nice berry quality. Highly productive and maintains fruit size throughout the season. This is our first year offering Galletta, so please let us know what you think. Vigorous plants are tolerant to red stele and foliage diseases. **PVP**. Z4.

L359A Galletta Strawberry, bundle of 50, \$19.00



Honeye Early-Mid. NY 1409 (Vibrant x Holiday) NY Station, 1979. Folks pronounce it *honey-eye*. Tough, hardy, vigorous, extremely productive and easy to grow. The freezer-filler of the strawberry patch. Produces large conic bright red fruit over a long fruiting season. Firm flesh with tart—and surprisingly good—flavor. Excellent freezing quality. A week before Jewel. Probably the most popular commercial berry in the Northeast. Plant in well-drained soil to avoid red stele. Susceptible to verticillium wilt. Z3/4.

L360A Honeye Strawberry, bundle of 50, \$19.00

Jewel Mid-Late. NY 1324 [(Senga Sengana x NY E-58) x Holiday] NY Stn, 1985. Shaun Keenan of Sand Hill Farm suggested we add Jewel to our list; he even went so far as to say that Jewel tastes almost as good as Sparkle. Although we don't think we'd go quite that far, we were very impressed with the berry. Large shiny red perfectly shaped fruit is firm, sweet and slightly aromatic. Unlike Sparkle, Earliglow and many other varieties, it keeps its size all season. Extremely popular with commercial growers and Gene's favorite. Good freezing quality. Low incidence of fruit rots and foliar diseases. Not resistant to verticillium or red stele. Z4.

L361A Jewel Strawberry, bundle of 50, \$19.00

Companion Plant Combinations for the Garden and Orchard

Generations of gardeners have identified certain plants as beneficial to each other in the garden. We can gather insight into what is possible when we step back a moment and observe the work of nature. Many old garden books contain some version of the following:

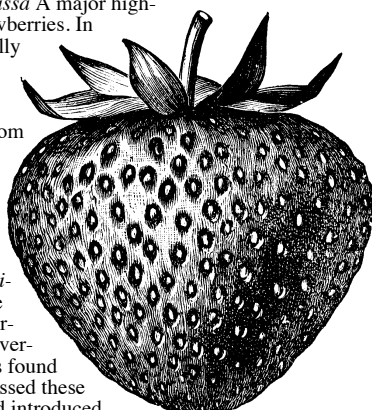
Apples planted with chives, garlic, tansy, horseradish and nasturtiums will have less scab and woolly aphids.

Asparagus likes tomatoes, calendula, basil and parsley, which deter asparagus beetles.

Strawberries grow better near lettuce, borage, and spinach. Spinach roots secrete saponins, which are antifungal and antimicrobial, and borage breaks down into calcium, potassium and other minerals.

Roses like garlic and chives, which can help with blackspot, mildew and aphids. Geraniums repel Japanese Beetles.

Grapes grow well with hyssop, which increases fruit yields.



Mara des Bois (Gento x Osara) x (Red Gauntlet x Korona) Hybridized by Jacques Marionett, Soings-en-Sologne, France, 1991. **Everbearing** strawberry claimed to be the most flavorful and fragrant of the day neutrals, often referred to as "gourmet." Berries are high in methyl anthranilate, the volatile compound that gives them their strong fragrance. Commercially grown in France where they are sold at a premium. Shorter shelf life makes them better suited for local markets. Plants bear medium-small glossy red berries prolifically from summer into fall the first year. Second year bears a heavy spring crop with continuously ripening berries throughout the summer. Z4.

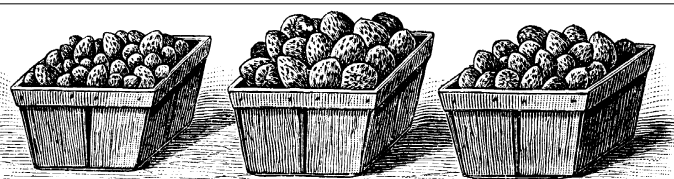
L362A Mara des Bois Strawberry, bundle of 50, \$19.00

Seascape CN 49. Developed by Royce Bringhurst, UC Davis, 1991. **Everbearing** strawberry showing excellent results in Northeast trials. Medium-to-long conic high-yielding firm productive reliable fruit with bright red color and excellent flavor. Broad resistance to fungal diseases. Somewhat susceptible to common leaf spot and two-spotted spider mite. Should be hardy in all but the coldest districts. Z3.

L363A Seascape Strawberry, bundle of 50, \$19.00

Sparkle Mid-Late. Fairfax x Aberdeen. NJ Ag Exp Stn, 1942. Although not a favorite with commercial growers because of moderate crop size and smaller berries, we've yet to taste a strawberry that comes even remotely close to Sparkle. They possess a flavor that can only be described as the essence of strawberry. The best in an early year, the best in a late year, the best this year, last year, every year. Soft berries make delicious fresh eating and are also excellent for jams and freezing. One of its few drawbacks is that it tends to lose color in the freezer. First fruit set is large; the rest are small. Resistant to most strains of red stele. Blooms late, rarely affected by spring frost. Z3.

L364A Sparkle Strawberry, bundle of 50, \$19.00



Strawberries

Keep cold or refrigerate between arrival and planting. We ship with roots slightly on the dry side. If you cannot plant them for a while, uncover the roots, mist them with water and re-cover, leaving tops exposed. Place bundle in paper bag and store on the bottom shelf of your fridge. Don't be alarmed if the tops become brown or mushy: they will generate new leaves.

Strawberries require good air drainage, well-drained fertile soil with pH of 5.8–6.2, thick mulch and full sun. Avoid soils where tomatoes, peppers or potatoes have grown in the past 4 years. Plant strawberries at the same depth as they were in the nursery, with the middle of the crown at soil level. Keep your patch free of weeds. They require $\frac{3}{4}$ –1" water per week during April, May, August, September and October. Mulch with hay or straw in late fall to protect plants over winter. In the spring, pull mulch off plants and place between rows where it will keep fruit dry and clean during the summer. It can also be raked back over the plants if frost threatens flower buds. Floating rowcover may also be used for winter and frost protection.

The 1895 Green's Nursery catalog recommends setting out strawberry plants in the evening. "Carrying plants about the fields in the glaring sun in the heat of the day, is a trying ordeal. If planted in the evening, the dews immediately fall upon plants and give opportunity for recuperation before the next morning's sun appears." We think this is good advice for all plants.

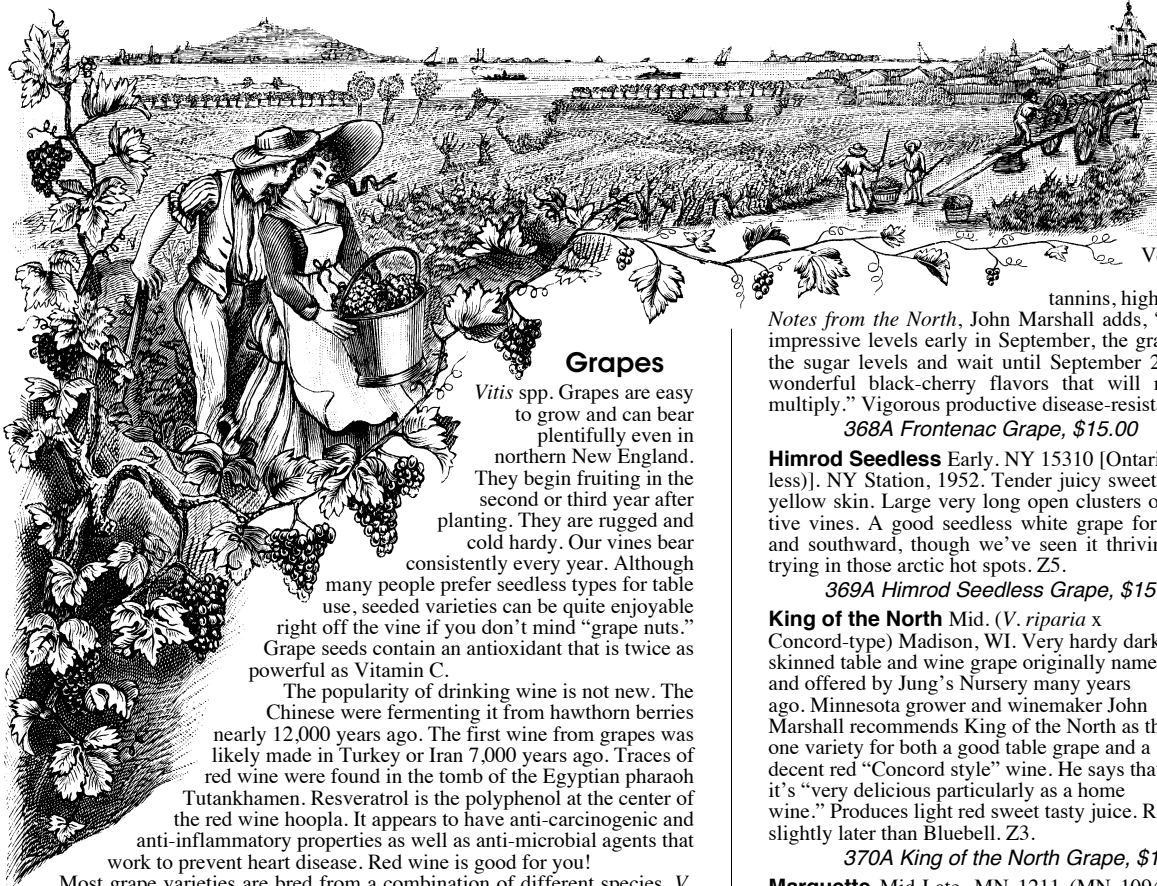
June-Bearing Strawberries

Matted Row system: Set plants 12–24" apart in rows 3' apart. Allow plants to produce runners freely and fill in the row. Remove all flowers the first year. Harvest berries the second summer. Immediately after harvest, fertilize liberally with compost or aged manure and renovate the row. By hand or with a tiller, narrow the row to 12" wide. Thin plants to 4–5" apart within the row. By this method a bed can last about 5 years. Then plow it under and start again.

Everbearing or Day-Neutral Strawberries

These plants flower regardless of day length as long as temperatures are between 35 and 85°, and produce fruit from June to October. They are also uncommonly productive—about 1 lb of fruit per plant the first year, and slightly less the second year. Productivity peaks in August the first year. The second year, berry size decreases in the hottest weather and increases in cooler weather.

They are heavy feeders and benefit from 3–4" of manure worked 4–6" into the soil prior to planting. Plant 6–12" apart. Mulch with black plastic or thick straw immediately after planting. Remove flowers for the first 6 weeks, and remove all runners the first season. Mulch in late fall. Sidedress with manure monthly during the second season beginning in May. Till under after the second year and begin again.



Grapes

Vitis spp. Grapes are easy to grow and can bear plentifully even in northern New England. They begin fruiting in the second or third year after planting. They are rugged and cold hardy. Our vines bear consistently every year. Although many people prefer seedless types for table use, seeded varieties can be quite enjoyable right off the vine if you don't mind "grape nuts." Grape seeds contain an antioxidant that is twice as powerful as Vitamin C.

The popularity of drinking wine is not new. The Chinese were fermenting it from hawthorn berries nearly 12,000 years ago. The first wine from grapes was likely made in Turkey or Iran 7,000 years ago. Traces of red wine were found in the tomb of the Egyptian pharaoh Tutankhamen. Resveratrol is the polyphenol at the center of the red wine hoopla. It appears to have anti-carcinogenic and anti-inflammatory properties as well as anti-microbial agents that work to prevent heart disease. Red wine is good for you!

Most grape varieties are bred from a combination of different species, *V. labrusca* and *V. vinifera* being the most important. *Labrusca* is native to the eastern U.S., has a wild tart musky (foxy) flavor, and is hardy and disease resistant. Concord is the best-known of the *labruscas*. *Vinifera*, native to Europe, is extremely high quality, and is the most important wine grape in the world, but is not cold hardy and is prone to disease. *V. riparia*, used as rootstock for grafted varieties and in hybridization with *vinifera*, is very adaptable to a wide range of soils, disease resistant and very cold-hardy.

In central Maine, "very early" grapes begin ripening in mid-August, while "midseason" ripen mid-September. Late-season Concord, a standard elsewhere, does not ripen in many northern areas. **Do not require a second cultivar for pollination.** (1-2 yr well-rooted vines)

Bluebell Mid. MN 158 (Beta x unknown) Developed by JM Dorsey, U Minn, 1944. Our most popular seeded grape; it does everything well. Extremely hardy, to -30°, *labrusca* type ripens 2-3 weeks earlier than Concord. While it ripens beautifully from central Maine south, it may not have time to ripen in some northernmost locales. Delicious sweet flavor makes them excellent for fresh eating, jelly and juice. Clusters of medium-sized dark berries with a heavy blue bloom. Strong, productive, vigorous—but not rampant—vine. A joy to grow. Immune to most or all fungal diseases. Z3.

366A Bluebell Grape, \$15.00

Brianna Early-Mid. ES 7-4-76 (Kay Gray x E.S. 2-12-13) Iowa State U, 2001. Bred by Elmer Swenson in WI, selected in 1989. High-quality white table and wine grape. Medium-large round thick-skinned gold berries in medium-small tight clusters. Great for fresh eating. As a wine grape, imparts pineapple and grapefruit flavors with very floral characteristics. French-American hybrid including *V. labrusca* and *V. riparia*. Vigorous vines are easy to manage. Z3/4.

367A Brianna Grape, \$15.00



Grapes prefer soils with pH of 5.8-7.0. For the best grapes, provide moderate fertility, very well-drained soil and full sun. Every June we thoroughly weed the grapes under our arbor, then mulch very liberally with old hay. After that, we don't do a thing to them except harvest in late summer and prune in late fall. Space 8-12' apart in rows 8-12' apart.

Spread the roots out, planting the crown even with the soil surface. Do not prune roots. Pack soil well. Water and mulch well. After frost danger has passed, prune vines back to 3-5 strong buds.

Continue to mulch annually with hay or straw. Every few years fertilize liberally with granite dust.

Grapes require annual pruning and a trellis or arbor, though in Italy they still sometimes grow them in maple trees. All systems for growing grapes involve removal of most growth in spring or late fall to encourage new canes, as fruit is produced on these canes. There are many systems for training grapes. Some are suited to laying down and covering tender varieties over winter. Any good book on grape growing will show you several options. We suggest the Hudson River Umbrella or the Four-arm Kniffin system. The University of Maine offers a series of videos demonstrating different grape-training techniques. Go to: umaine.edu/highmoor/ and click on "videos."

People sometimes ask about wire. The current vineyard standard is high-tensile-strength class III galvanized steel wire. The gauge should be 11 to 12.5. The wire is generally sold by weight. 100 lbs of 11 gauge measures about 2600'. 100 lbs of 12.5 measures about 3800'.

Grapes rated for Zone 5 can be grown in Zones 3 and 4. To prevent winter injury, remove the vine from the trellis in fall, lay it on the ground, and bury with just enough soil to cover. To do this, plant your new grapevine at a 45° angle. Train new shoots horizontally for at least one foot. Then, curve shoots upward to form a J shape. This creates a flexible hinge, allowing you to lay the vine down at the end of the season.

Frontenac Mid-Late. MN 1047 (*V. r.* RIP 89 x Landot 4511) U Minn, 1996. A highly praised cold-hardy red-wine grape, also excellent for fresh eating. Recommended for dry full-bodied Merlot- or Bordeaux-style table wines, rosés and ports.

Very large loose clusters of small berries. Intense juice color, low

tannins, high sugar and high acid content. In

Notes from the North, John Marshall adds, "Though the sugar may rise to impressive levels early in September, the grapes are not nearly ripe. Ignore the sugar levels and wait until September 20. The acid will drop and the wonderful black-cherry flavors that will make this grape famous will multiply." Vigorous productive disease-resistant vines. Z4/5.

368A Frontenac Grape, \$15.00

Himrod Seedless Early. NY 15310 [Ontario x Sultanina (Thompson seedless)]. NY Station, 1952. Tender juicy sweet small oval fruit with greenish-yellow skin. Large very long open clusters on vigorous moderately productive vines. A good seedless white grape for the warmer pockets of Maine and southward, though we've seen it thriving just west of Bangor. Worth trying in those arctic hot spots. Z5.

369A Himrod Seedless Grape, \$15.00

King of the North Mid. (*V. riparia* x Concord-type) Madison, WI. Very hardy dark-skinned table and wine grape originally named and offered by Jung's Nursery many years ago. Minnesota grower and winemaker John Marshall recommends King of the North as the one variety for both a good table grape and a decent red "Concord style" wine. He says that it's "very delicious particularly as a home wine." Produces light red sweet tasty juice. Ripens slightly later than Bluebell. Z3.

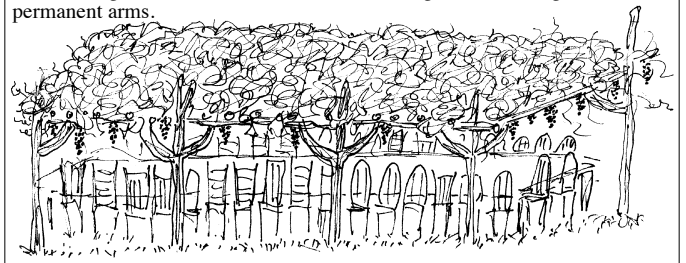
370A King of the North Grape, \$15.00

Marquette Mid-Late. MN 1211 (MN 1094 x Rivat 262) U Minn, 2006. This grape has northern winemakers buzzing with excitement. The best variety this side of the Atlantic for a Pinot-Noir-style red wine. One parent, MN 1094, has both *V. riparia* and *V. vinifera* in its background. The other, Rivat 262, is a French hybrid with Pinot Noir as one of its parents. Not only is Marquette heavy with *vinifera*, the vines are also extremely cold-hardy. And there's more: sugar levels are high—in the range of 26.1 Brix—and the acid levels are lower than Frontenac. Substantial tannins add complexity. Small-medium bluish-black berries in small to medium-sized clusters. Ripens a few days before Frontenac. **PVP**. Z3.

373A Marquette Grape, \$15.00

Growing Grapes on an Arbor

Train one or more vines onto an arbor or gazebo; we have 8 vines, spaced about 10' apart. Prune each vine back to a single trunk. Encourage several permanent arms from each trunk. Every winter remove 70-90% of the past summer's growth. Next summer new fruiting canes will grow off the permanent arms.





Reliance Seedless Very Early.

Arkansas 1163 (Ontario x Suffolk Red) Arkansas Stn, 1982. Good for fresh eating or juice. Large loose clusters of tender melting sweet pinkish-red fruit with a strawberry-like flavor. Stores well in a root cellar for 1-2 months. Seems hardy although it has shown significant dieback in our Zone 4 trials. You may need to lay vines down for the winter in colder areas (see sidebar). While the literature cautions about Reliance's disease susceptibility, our vines have performed well and remained free of disease. Z4/5.

374A Reliance Seedless Grape, \$15.00

Somerset Seedless Early. ES12-7-98 (ES5-3-64 x Petite Jewel) Swenson intro. Somerset is likely one of the hardiest seedless grapes available today. One of the last Swenson introductions before the renowned and beloved grape breeder passed away in December 2004. Medium-sized loose clusters with small sweet ruddy reddish-golden fruit. Crispy texture and great flavor. Easy to grow but not overly vigorous. Z4.

376A Somerset Seedless Grape, \$15.00

Worden Mid. *V. labrusca*. Concord seedling. Minetto, NY, 1863. Heirloom variety. Large long broad tapering clusters of medium-sized round dark purplish blue-black berries with a heavy bloom, thin tender skin and greenish translucent juicy flesh. Sweet mildly foxy flavor with excellent fresh-eating quality. Ripens 2-3 weeks earlier than its parent. In 1908, *The Grapes of New York* recorded, "Of all the offspring of Concord, this variety is best known and is most meritorious." Green's catalog from 1904 states, "If you fail to plant a Worden grape you will make a mistake." Healthy hardy vigorous productive vines. Z4.

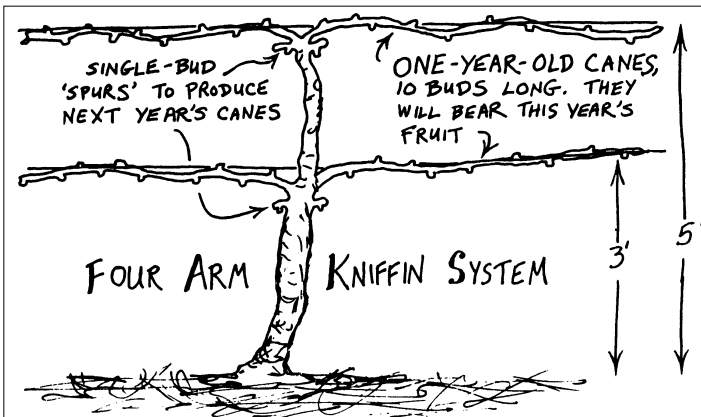
377A Worden Grape, \$15.00

Grape Collection Our pick of 4 varieties, individually labeled, a combo of hardy dessert and wine grapes.

381A Grape Collection, bundle of 4, \$50.00

Pick up those old bones, boots and shoes, all the chickens that die, and plant near the grapes; and the pruning of the vines are good. Don't burn any old boots they are worth fifty-cents each to grapevines.

- G.J. Spear, Proprietor of Greeley Nurseries, Greeley, CO, 1901



Pruning Grapes in the Four-Arm Kniffin System

First year: After the danger of frost has passed, cut newly planted vines back to a single stem, 6" long with two to three buds.

Second year: Set up two wires, 3' and 5' high, stretched between posts. Cut plant back to a single stem, 6 feet long and tie it to the top wire. Leave 4-6 buds near each wire and remove others.

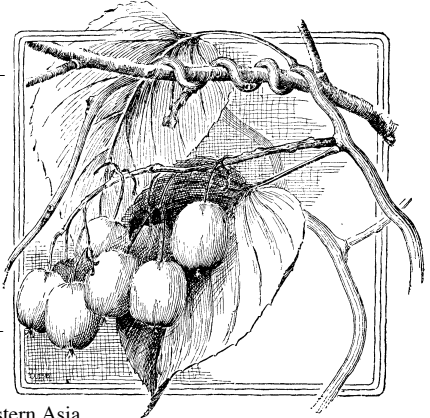
Third year: Select 8 canes, 4 for each wire, and remove the rest. Tie two canes to each wire, in each direction. Cut these 4 canes back to 10 buds each. Cut the remaining 4 canes back to 1-2 buds each.

Later years: In the spring, remove last year's fruiting canes. Select eight new canes. Cut 4 of them to 10 buds each, and tie them to your wires. Cut the remaining 4 back to 2 buds each. These will produce next year's fruiting canes. Remove all other canes. The number of buds left on the fruiting canes may be adjusted to encourage more fruit (leave more buds) or larger size (leave fewer buds).

Hardy Kiwis *Actinidia* spp. Productive twining vine climbs 20' or more and produces kumquat-sized kiwi fruits in late summer, so delicious that you might not be able to stop eating them! Unlike supermarket kiwis, the skin is smooth and edible. The longer they ripen on the vine, the sweeter they become. Easy to grow in rich well-drained soils. Will begin producing in 5-9 years. Mature plants may produce up to 100 lbs of fruit. Once vines are established, adequate pruning (see directions in sidebar) will significantly increase yields. No significant pest or disease problems.

Both male and female plants required for fruit.

One male will usually pollinate at least three females of the same species. The females bear the fruit. We offer two species. *Arguta* ripens around mid-September, has larger fruit and is more vigorous than *kolomikta*. (*Argutas* can just about pull down a tree.) *Kolomikta* ripens around mid-August, has smaller fruit and is less vigorous but more cold-hardy than *arguta* and should thrive even in the northernmost districts. Native to eastern Asia. (well-rooted transplants)



A. arguta 'Chang Bai Mountain' Female. New vigorous hardy seedling of cultivar Qui from the Changbai Mountain region bordering North Korea and China. Firm green heart-shaped fruits the size of quarters are distinct in shape and more rounded than other *argutas*. Sweet flavor with little acidity. Highly productive. Z4.

382A Chang Bai Mountain Female Kiwi, \$14.50

A. a. 'Michigan State' Female. Michigan State University. Tom Vigue calls them "sweet and most highly luscious." A dynamic combination of sweet and sour. Although they may sometimes make you pucker up, the overall experience is joyous and delicious. Larger than other varieties. Z4.

383A Michigan State Female Kiwi, \$14.50

A. a. 'Meador' Fruitless male kiwi suitable for pollinating *arguta* females Chang Bai and Michigan State. Will not pollinate *kolomiktas*. Extremely vigorous vines are often grown just for their beautiful dark green ornamental foliage accentuated by reddish-pink petioles (leaf stalks). Z4.

384A Meador Male Kiwi, \$14.50

A. kolomikta 'Red Beauty' Female. Fruit is sweet and small, the size of a large grape. Medium-dark green foliage becomes showy red in autumn. Requires Arctic Beauty for pollination. Z3/4.

385A Red Beauty Female Kiwi, \$14.50

A. k. 'Arctic Beauty' Fruitless male pollinator for Red Beauty. Will not pollinate *argutas*. Often grown by itself as an ornamental for its beautiful foliage. Young leaves emerge purple, then become variegated pink, white and green, looking as though they've been dipped in paint. Heat, excessive fertilization or shade may reduce the leaf color. Z3/4.

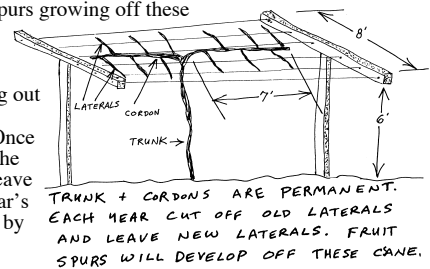
386A Arctic Beauty Male Kiwi, \$14.50

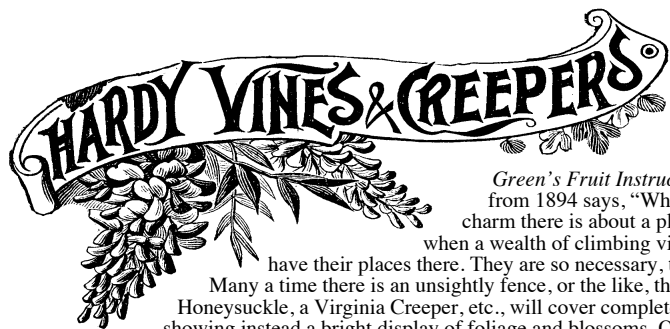
Kiwis are dioecious vines, meaning male and female flowers are on separate plants, so you must plant a male plant to pollinate the fruiting female plants. They are extremely vigorous and require a rugged trellis or arbor and heavy pruning. Plant vines 10' apart each way in moist but well-drained soil. Kiwis are adaptable and tolerate a wide range of soil types (pH 5.0-6.5). One male will pollinate several females as long as they are within approximately 30' of the male. Although the vines are quite hardy, the flowers and foliage are frost sensitive. Planting on a northern exposure will delay budding in spring and reduce risk of frost damage. Protection from winter winds and intense winter sun is also recommended. Mulch with hay or wood chips. On poor soil fertilize with compost annually.

On a trellis: Train a single trunk to the trellis wires and then train two permanent 7-10' cordons (arms) off the trunk. Each winter remove at least 70% of old growth, leaving a dozen or so one-year-old laterals. That year's fruit will develop on fruit spurs growing off these one-year-old canes.

Summer pruning may be required to keep extremely rampant vines from choking out your farm.

On an arbor or gazebo: Once established, prune 70% of the old growth each year and leave some new canes for this year's fruiting. *The Pruning Book* by Lee Reich is an excellent reference for pruning kiwis.





Green's Fruit Instructor from 1894 says, "What a charm there is about a place when a wealth of climbing vines

have their places there. They are so necessary, too.

Many a time there is an unsightly fence, or the like, that a Honeysuckle, a Virginia Creeper, etc., will cover completely, showing instead a bright display of foliage and blossoms. Only those who have lived in homes where the grounds have been void of this natural ornamentation, and in homes where these pretty vines annually climb to their accustomed places, can fully appreciate them." We concur.

Apios americana Groundnut Nitrogen-fixing leguminous perennial twining vine with edible tubers. Grows to about 5' long. Roots grow 1-6" deep and have periodic swellings (the groundnuts) that range from marble size to larger than a golf ball. These edible tubers can be harvested any time of year. Delicious, high in starch, and contain three times the protein of a potato! Peel them first, then eat them boiled, roasted, baked, mashed, sliced, diced, puréed or even made into chips. Not recommended raw. Will keep a month or more in the fridge or root cellar, or dry them and they keep forever. An essential food for Native Americans for hundreds of years; also essential to the survival of the first European settlers in New England. Small orchid-like maroon, pink and violet flowers appear in late August in central Maine followed by 2-4" bean pods. Prefers moist sandy soil. Full to partial sun. Keep it out of your garden as it will spread. Can be vigorous and requires a trellis of some sort. Native to river banks and flood plains, southern Canada, eastern and midwestern U.S. Grown by Carmen Gonzales in Starks. Z3. **ME Grown.** (tubers)

L389A Groundnut, bundle of 10, \$15.00

Aristolochia durior Dutchman's Pipe

20-30' Also called **Pipe Vine**. Vigorous climber with large wonderful 4-10" heart-shaped dark green leaves. Once established, it will cover the porch, trellis or gazebo every summer. Beware though—one vine can peel the shingles right off the side of your house! Provides all the privacy you ever wanted even if you live right in town. Inconspicuous U-shaped tubular white and mahogany flowers in clusters of 1-3 look like wee Dutchman's pipes. Sun or shade. Thrives in shade. Likes well-drained soil with adequate moisture. Native to eastern U.S. Z4. (well-rooted transplants)

390A Dutchman's Pipe, \$15.00



Hops

Refrigerate slightly moistened rhizomes in a plastic bag until planting. Hops prefer full sun and rich light well-drained soil with a pH of 6.5-8.0. As soon as soil can be worked in spring, till to create a weed-free area. Dig holes about 1' deep and at least 3' apart in rows. Add manure, compost and other slow-release organic fertilizers. Plant 2 rhizomes per hole, horizontally with the buds pointed up and cover with 1-2" of loose soil. The first year the hop plant requires frequent light watering and mulching.

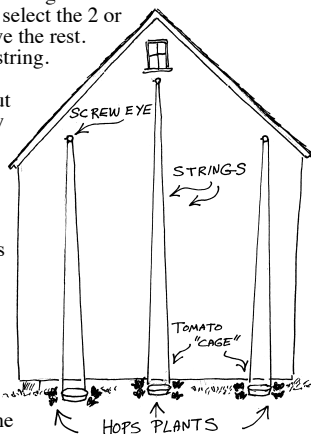
Hops grow vertically, with lateral sidearms extending from the main vine and producing cones. Vines may grow up to 25' in a single season, and do best if they are trained onto strong twine 12-30' high, supported by a trellis, wire, pole, tree branch or south-facing building.

When the young vines are about 1' long, select the 2 or 3 most vigorous vines per hill and remove the rest. Gently wrap the vines clockwise onto a string.

Once trained, the vine will guide itself.

Pick the hops when they are papery but still slightly sticky and filled with yellow powder. Harvest dates will vary with the variety and climate. Because most hops are produced out of reach from the ground, it is safest to lower the vines in order to pick the hops. Dry hops thoroughly before use. Spread on screens in a dry attic, they will dry in a few weeks. Dried hops freeze well.

Cut the vines back to the ground after they have been killed by frost. Each spring apply a hearty topdressing of manure and compost. To help control vigor, prune roots by cutting a 2-3' circle with a shovel around the base of the plant in spring.



Humulus lupulus Common Hops Late summer. Up to 20-30' Beautiful twining vine covers a trellis, archway or the entire side of a barn. Our favorite live awning to shade out the summer sun. Green lobed leaves, bristly stems, and insignificant greenish flowers, followed by the hops: papery aromatic cone-like strobiles used medicinally and in brewing for more than 1000 years. John Christopher recommends the strobile tea as "a powerful, stimulating and relaxing nerve tonic." For brewing, there are basically two types of hops. Aroma hops have a lower percentage of alpha acids and are used for flavoring, finishing or conditioning brews. Bitter hops have more alpha acids and are used to impart bitterness. Tolerates shade, adapted to most well-drained soils. Dies back to the ground in fall and rebounds more vigorously each year. Plant it where you want it because it really takes over. Native to Eurasia. Z3. (5-6" female rhizomes)

H. I. 'Cascade' USDA 19124 [(Fuggle x Serebrianka-Fuggle S) x open pollinated] Oregon St U, 1972. Contains 4-7% alpha acids. Fragrantly aromatic hop, low bittering value. Very productive with large cones, ready to harvest mid-late August in central Maine. A customer wrote, "Cascade has gained impeccable renown as the charismatic hop in such unsurpassable ales as Anchor's Liberty Ale, Sierra Nevada's Pale Ale and McNeill's Firehouse Amber Ale. Nothing 'light' about these." Resistant to downy mildew.

L391A Cascade Hops, bundle of 3, \$17.50

H. I. 'Brewer's Gold' Open-pollinated seedling of Wild Manitoba. Wye College, England, 1919. Old variety and ancestor to many high-yielding hops including Newport, Sterling, Galena, Horizon, Centennial and Nugget. Spicy fruity aroma with 8-10% alpha acids. Sought after for lighter ales and lagers as a bittering agent. Largely grown in southern Germany where it develops lower alpha-acid content than in North American soil. Pairs well with German Noble-style hops. Vigorous productive plants.

L392A Brewer's Gold Hops, bundle of 3, \$17.50

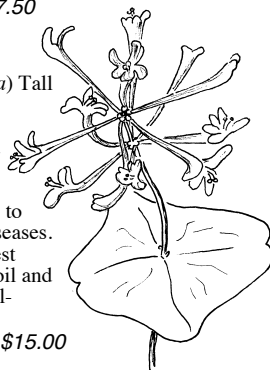
H. I. 'Newport' (Hallertauer Magnum x USDA 58111M) USDA-ARS, Corvallis, OR, 2002. Complex parentage containing Brewer's Gold, Hallertauer, Late Grape, Belgian and Fuggle. Bittering hop with balanced flavor and high alpha acids, 13-17%. Like Nugget it does not impart a citrus note although some say it is more flavorful. Used in a wide variety of beers, mostly American ales. Soil adaptable and disease resistant.

L393A Newport Hops, bundle of 3, \$17.50

Lonicera x brownii 'Dropmore Scarlet'

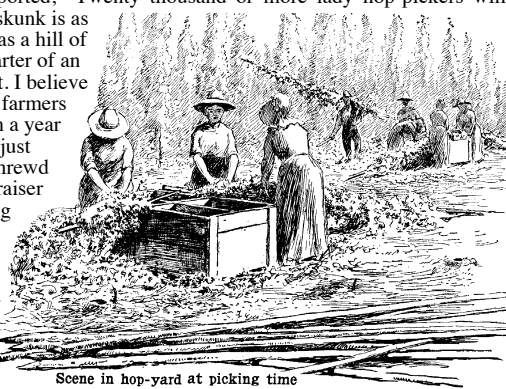
Honeysuckle 10-20' (*L. sempervirens* x *L. hirsuta*) Tall climbing honeysuckle developed by FL Skinner in Manitoba. Jazzy whimsical clusters of 1 1/2" scarlet-orange tubular flowers bloom profusely and tirelessly from early summer into late fall. Attracts hummingbirds and butterflies. Striking blue-green foliage on red stems. Great for fence or arbor. Easy to grow, not invasive, generally free of insects and diseases. Flowers the first year. Considered one of the hardest vining honeysuckles. Likes average well-drained soil and full sun. Species native to North America. Z3. (well-rooted transplants)

394A Dropmore Scarlet Honeysuckle, \$15.00



The Wisconsin Hop Craze: 1860-1870

In the 1830s, U.S. farmers raised between 1 and 3 million pounds of hops per year, compared to Great Britain's average 44 million pounds. In the 1860s the beer industry became big business. In Milwaukee Pabst and Schlitz needed far more hops than farmers produced domestically. So hundreds of acres of farmland in Wisconsin were converted to hops. With the men away at war, women worked in the fields and kept the farms alive. Each season in late summer thousands of women and children would come from far and wide to pick millions of pounds of hops. With everyone growing the same crop, the price suddenly dropped. To make matters worse, aphids emerged and covered the dense plantings, destroying entire crops just before harvest. The "hop louse"—as the aphid was called—created sooty mold, and entire fields were blackened like a bad dream. A correspondent of The New England Farmer journal in 1868 reported, "Twenty thousand or more lady hop-pickers will bear witness that a skunk is as desirable company as a hill of hops with lice a quarter of an inch thick all over it. I believe some two thousand farmers in Wisconsin will in a year from now be doing just what I saw a very shrewd man and extensive raiser doing today—selling hop-poles for firewood." By 1879 only a few of these farms remained and most hop farming moved west to drier land.



Scene in hop-yard at picking time

Nuts

Carya illinoensis Northern Pecan

Seedlings Up to 90' Our southern friends collect pecans along the roadside the way we collect apples in October. Native stands can be found as far north as Illinois. Although the tree itself may be plenty hardy in much of the North, it requires summer heat and a warm fall to fill the nuts we all know and love. Some of you have been asking us to offer this tree, so here it is! It will be an experiment in the north and at the very least, you will end up with a lovely shade tree. Write to us about how it goes. Very large tree likes lots of room, full sun, deep moist fertile soil with no ledge. Will take 3-4 years to establish a taproot, then the trees should grow rapidly. **Two seedlings required for pollination.** Z4/5. (1-3')

399A Northern Pecan, \$16.00

C. ovata Shagbark Hickory Seedlings

60-80' or taller. One of our most beautiful native nut trees. Straight trunked and draped with branches that curve skyward at the tips. Not only does the bark shag, it looks as though huge long strips are about to fall off. After the tree reaches bearing age, about 40 years, it will shower the yard with sweet edible nuts. Those left unharvested germinate in the gardens, planted by local creatures, some four legged, some two. Rich yellow fall foliage. Slow growing but very long-lived. Tough wood used for making tool handles. Some of this year's supply comes from seed harvested for us by Russ Cohen, author of *Wild Plants I Have Known...and Eaten*. Prefers rich well-drained loam but adaptable. **Self-pollinating.** Native to eastern U.S. Z4. (1-3')

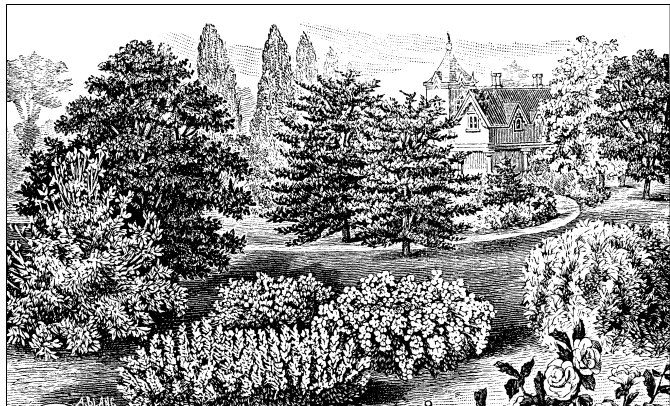
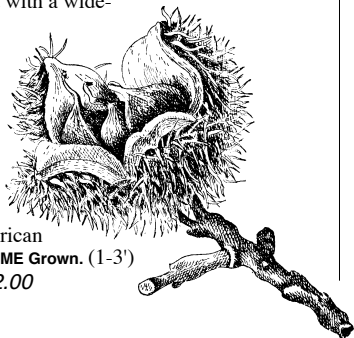
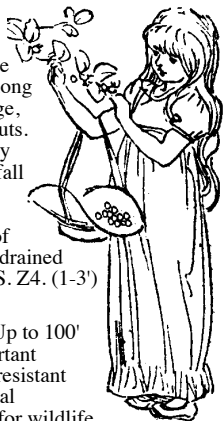
400A Shagbark Hickory, \$16.00

Castanea dentata American Chestnut Seedlings

Up to 100' Before 1900 American chestnut was one of the most important deciduous trees in the eastern U.S. The arrow-straight rot-resistant wood was used for everything from mine timbers to musical instruments. Delicious sweet nuts were an important food for wildlife and humans. The Asian fungus *Cryphonectria parasitica* (chestnut blight) was discovered in Brooklyn in 1904; within 50 years it killed virtually every chestnut tree in the eastern U.S. The blight does not kill the roots however, and rare isolated stands of mature trees can still be found. In July 2015, the tallest American Chestnut in North America was discovered by researchers who spotted the profuse white blossoms from the air.

The trees we're offering are not immune to blight but were harvested from healthy trees and will likely thrive if there is no active blight infection nearby. Fast growing and straight trunked with a wide-branching magnificent rounded crown. Fragrant white blossoms in July. Ribbed sharp-toothed lustrous dark green foliage. Yellow fall color. Prefers loamy well-drained acidic soil and full sun. **Two or more needed for pollination** but will cross-pollinate with Asian and European chestnuts. Precocious, bearing heavy crops of nuts in 10 years. From each American chestnut purchase, Fedco will donate \$3 to support the work of the American Chestnut Foundation Maine Chapter. Z4. **ME Grown.** (1-3')

401A American Chestnut, \$22.00



He who plants a tree plants hope. A treeless place cannot be a happy home for children, or wife, or husband, or friends. He who surrounds himself with trees surrounds himself with friends. Not only do they present you with healthful and toothsome fruits, but with cool shade and fragrant blossoms.

- from Green's Nursery Catalogue, 1904

Corylus americana American Hazelnut or American Filbert

Seedlings 12-18' x 10-15' Squirrels, bluejays and humans alike relish the sweet excellent nuts of this multi-stemmed rounded native shrub. Collect the crop as soon as the husks begin to turn brown and lose their sticky yellowness. In central Maine that's around the third week of September. Showy catkins in spring. Dark green serrated foliage in summer. A patchwork of reds, yellows, oranges and greens in autumn. Suckers from the roots. Excellent for naturalizing in thickets. The main pest is nut weevil, which leaves a "hit" mark on the nut shell. (Raking up drops and spraying Surround may help with controlling this problem.) Prefers well-drained soils and is pH adaptable. Full sun or light shade. **May be self-fruitful but** for best nut sets plant more than one shrub, 4-6' apart. Usually bears tasty 1/2" nuts 3-5 years after planting. Native to the U.S. Z4. **ME Grown.** (1-3')

403A American Hazelnut, \$16.00

Juglans cinerea Butternut Seedlings 40-60' x same. Very large impressive rounded shade tree produces edible nuts. Broad open crown, distinctive compound leaves on large arching branches that can hang nearly to the ground. Leaf out relatively late in spring. Oblong edible nut was used by native people to make oil. Soft young nut can be pickled for eating, and husks yield a yellow-orange dye. Very nice cabinet wood referred to as White Walnut. Prefers moist rich deep soils but will grow in dry rocky conditions. Give it full sun and plenty of space to reach its full expression. Susceptible to butternut canker, which has devastated many wild specimens. Two old lovely trees are thriving in Belfast, ME. **Self-fertile but** plant two for more abundant crops. Native New Brunswick to Georgia. Z3. (1-3')

404A Butternut, \$16.50

J. nigra Black Walnut Seedlings

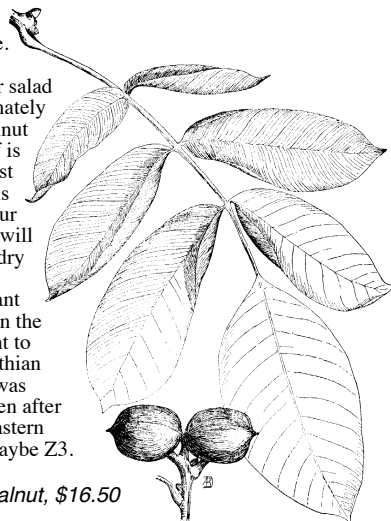
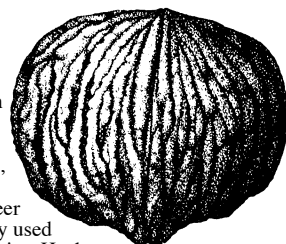
70-90' A spectacular shade tree with a magnificent open rounded crown of massive limbs with dark green leaves. Harder to crack than commercial English walnuts but worth the effort for their extraordinarily distinct sweet earthy rich flavor. Eat them chopped on fresh salads, or with dark chocolate while sipping bourbon. Highly valued cabinet and veneer wood. Husks, leaves and roots commonly used in herbal medicine for anti-fungal properties. Husks also yield a rich brown dye. Deep taproot. Prefers moist well-drained soils, pH 6-7. Roots give off a compound called juglone that inhibits competing plants, so don't plant one too close to your garden. Space trees about 50' apart for nut production, 20' apart for lumber. May begin to bear fruit in 5-10 years. Some say multiple trees needed for **pollination** but we've seen enough solo trees with large nut crops to say that you only need one. Native to eastern U.S. though not quite into Maine. Z4. (1-3')

405A Black Walnut, \$16.50

J. regia 'Carpathian' Walnut Seedlings 30-50' with 40' spread. Species sometimes called **English Walnut** or **Persian Walnut**. Very large open somewhat vase-shaped

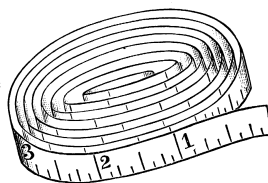
fast-growing tree with those edible nuts you buy in the store. This is also the walnut traditionally used in Europe for salad oil. Has the same alternate pinnately compound foliage as black walnut but each glossy blue-green leaf is larger and more rounded, almost tropical looking, and the shell is a bit easier to crack. Because our trees are seedlings, nut quality will be variable. Prefers light deep dry loamy soil. Bears in 5-7 years. Considered **self-fertile, but** plant two for more abundant crops. In the 1930s, this cultivar was brought to North America from the Carpathian Mountains in Poland where it was reputed to bear heavy crops even after -40° winters. Native to southeastern Europe, east to China. Z4 or maybe Z3. **ME Grown.** (1-3')

406A Carpathian Walnut, \$16.50



Plant Sizes

All of our woody plants are well-rooted bare-root plants. Some shrubs may be a bit shorter than the specs given, and some hardwoods may be much taller. Because of the nature of living plants, size variations will naturally occur within each crop.





Shade Trees

Acer saccharum Sugar Maple 50-100' Largest of our native maples, also known as **Rock Maple**, valued for shade, syrup and lumber. A New England tradition was to plant a pair of sugar maples in front of the farmhouse on the inhabitants' wedding day. Those "wedding trees" still grace many Maine front yards. Famous for its yellow, gold, scarlet and crimson fall foliage and its fresh sap that's boiled down to make real maple syrup. Huge upright spreading form with light grey bark. Shade tolerant, making it easy to interplant in existing woods. Prefers moist well-drained soils. Cold hardy. Sensitive to salt and air pollution; not a good city tree. Native Quebec to Gulf Coast. Z3. **ME Grown.** (1-3')

410A Sugar Maple, \$18.00

Betula papyrifera Paper Birch 30-70' x 30' Also called **Canoe Birch** or **White Birch**. The classic birch tree. Elegant as a single- or multi-stemmed specimen. Medium-sized tree with an irregular oval shape, upright angled branches and magnificent chalk-white peeling bark. Deep green foliage produces light shade in summer and turns clear yellow in fall. Birds prize the catkins, buds and seeds. Twigs are a favorite deer browse. Bark traditionally used for building canoes, containers and roofing. When traveling in the north country, keep a small bundle of finely shredded bark in your pocket to kindle the nightly fire. Valuable wood at the sawmill. Twiggy branches, stuck into the ground, are perfect for pea fencing. Prefers moist well-drained acid soil though we've seen it thrive on ledge. Native to northern North America. Z3. (1-3')

412A Paper Birch, \$15.00

412B Paper Birch, bundle of 5, \$67.00

Carpinus caroliniana Muscledwood 10-40' x same. Also known as **Blue Beech**, **American Hornbeam**, **Ironwood** and **Water Beech**. A small flood-plain or understory tree with long irregular crooked branches and smooth grey ribbed bark. Alternate names each refer to one of its wonderful attributes. Muscledwood refers to the sinewy ribbing of the trunk, which resembles a flexed forearm. Smooth grey bluish-tinted bark resembles beech. Ironwood because of its incredible toughness, suitable for tool handles and oxen yokes. Water beech because it can thrive in a flood plain. Bronze-red tomentose foliage in spring turns a striking blue-green color with the season. Bright red, scarlet and orange fall color all at the same time. Prefers deep rich moist slightly acid soil but will handle dry spots. Remarkably adaptable but does not like urban conditions, although the one growing next to the Farnsworth Museum in Rockland is doing well. Full sun to full shade. Native from Canada to Central America. Z2. **ME Grown.** (1-3')

413A Muscledwood, \$16.00

Cercidiphyllum japonicum Katsura Tree 40-60' x 20-30' One of the most prized of all ornamental trees and a common sight in the Japanese garden. Multi-trunked with a pyramidal to wide-spreading form. Beautiful drooping heart-shaped foliage emerges a glowing reddish-purple, becoming bluish-green during the summer and then a delightful apricot-yellow in fall. Leaves flutter in the breeze, shimmering and reflecting light. Fallen leaves exude the sweet fragrance of caramelized sugar. Shaggy bark. Michael Dirr wrote that if he had to pick one favorite tree, it would be the katsura tree: "overwhelming in overall attractiveness." It's worth the drive to Asticou Azalea Garden on Mount Desert Island to see the mature specimens by the pond. Prefers rich moist well-drained soil. Supplemental watering during the first couple of years will help the young tree get established. After that, it'll grow fast. Native to eastern Asia. Z4. **ME Grown.** (1-3')

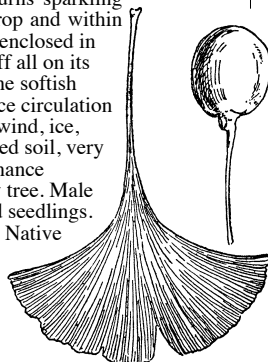
414A Katsura Tree, \$17.50

Ginkgo biloba Ginkgo 50-80' Also called **Maidenhair Tree**. Considered the oldest living genus of seed plants; grew in North America in the time of the dinosaurs. There are 3000-year-old specimens in China. Upright tree when young with branches that spike out and up like the rays of the sun, eventually becoming wide-spreading and graceful. Slow-growing, can be extremely long-lived. Unique fan-shaped foliage turns sparkling golden-yellow in fall, then all at once the leaves drop and within hours the tree is bare. Famous for their edible seeds enclosed in infamously stinky fruit. The flesh will actually rot off all on its own, leaving clean edible nuts with no bad smell. The softish nuts can be used in stir-fries. Leaf tea used to enhance circulation to the brain and extremities. Tolerates smoke, dust, wind, ice, insects, disease, salt. Prefers slightly acid well-drained soil, very adaptable, full sun to partial shade. Minimal maintenance requirements, nearly indestructible, an excellent city tree. Male and female tree required for fruit. These are unsexed seedlings.

Plant two or more to increase the chance of fruit. Native to southeastern China. Z3. (1-3')

415A Ginkgo, \$16.00

415B Ginkgo, bundle of 5, \$70.00



Gleditsia triacanthos Honeylocust 50' x 30-35' Beautiful fast-growing pyramidal leguminous nitrogen-fixing tree. Fabulously fragrant honey-scented spring flowers are extremely popular with bees—the entire tree will hum with activity during peak blossom time. Bright green lacy leaves provide filtered light, making it good for "two-story" agriculture or great shade for the lawn. Subtle greenish-white flowers turn to sugary pods suitable for cattle or pig forage or even ethanol. Traditionally pods were dried, ground and used in flour. Good for erosion control and often used as a street tree. Plant in full sun, well-drained soil. Tolerates drought, pollution, salt, disease and insects. May have thorns. Native to eastern U.S. Z4. (1-3')

416A Honeylocust, \$15.00

Gymnocladus dioica Kentucky Coffeetree 50x50' Upright open-spreading dioecious specimen tree ideal for lawns or any spot that needs dappled shade. Grass will grow right up to the trunk. Stout branches and deeply furrowed bark. Lovely winter profile. Leafs out very late in spring. Blue-green bipinnately compound foliage hangs in perfect layers creating beautiful patterns. Fragrant greenish-white 12-18" flower panicles on the female trees, 3" panicles on the male. Attractive to bees. 3-8" seed pods on females. Early European settlers roasted, ground and boiled the seeds to produce a coffee substitute; however, raw seeds are poisonous to people and animals. Grows fast when young, slowing as the tree matures. Prefers deep moist soil but is adaptable to many conditions including alkaline soils, salt, city streets and drought. Disease free. Requires full sun. These are unsexed seedlings. Plant at least a pair if you're intent on kicking coffee. Native to the eastern U.S. Z3/4. **ME Grown.** (1-3')

417A Kentucky Coffeetree, \$16.00

Quercus macrocarpa Bur Oak 70-80' x same. Hardest of the white oaks with a deeply grooved massive trunk and a wide-spreading crown of huge branches. Small branches are distinctively corky, winged and tend to twist and kink. The habit is upright and somewhat vase shaped. Lustrous dark green foliage and large 1-2" acorns, each almost entirely enclosed in a fringed cup. These are edible and low in tannic acid; when roasted they supposedly make a decent coffee substitute. (For detailed instructions on acorn processing, see Samuel Thayer's book *Nature's Garden*.) The strongly astringent inner bark, foliage and acorn caps are all medicinal. The most urban-tolerant oak. Fairly fast growing. Needs full sun but adaptable to a wide range of soil types including clay. Monoecious, so you need only one to get fruit. Native to eastern U.S. and Canada. Z3. **ME Grown.** (1-3')

418A Bur Oak, \$16.00

Salix alba 'Tristis' Niobe Weeping Willow 50x50' The classic weeping willow, a very large majestic graceful wide-spreading tree. Golden drooping branches, which can hang to the ground, are used for basket weaving; golden bark and leaves used medicinally. Harvest twiggy branches in early spring to make a tincture. Buzzes with life when May flowers attract loads of pollinating bees. Native to southern Europe and western Asia. Z4. **ME Grown.** (1-3') (More willows on page 48.)

419A Tristis Niobe Weeping Willow, \$13.00

Tilia americana American Linden 60-80' x same. Also known as **Basswood** and **Butterwood**. Tall stately tree with rounded crown and numerous low-hung spreading branches. Sweetly fragrant yellow June flowers will attract all the bees in the neighborhood, are reputed to make the best honey, and also make a popular after-dinner tea and stomach remedy. Sprinkle them on your salad for a festive treat. The young half-size foliage makes a high-quality salad green. Excellent carving wood. Fibrous inner bark used for making cordage. Yellow fall color. Prefers deep rich moist soils with a pH slightly alkaline. Full sun or partial shade. Sensitive to salt and pollution. Native from New Brunswick to Virginia. Z3. (1-3')

420A American Linden, \$16.00

Ulmus americana 'Valley Forge' American Elm 60x70' US National Arboretum intro, 1995. Large fast-growing graceful native once lined virtually every street in New England but declined dramatically due to Dutch elm disease. At maturity, the trunk can reach 4' in diameter with an immense vase-shaped canopy. Long loose branches blow and sway in a hazy breeze on hot summer days. One of the most wonderful shade trees for northern climates. Fortunately, several disease-resistant cultivars have been introduced. Valley Forge was selected in Delaware, OH, and released after 20 years of testing. Plant more elms! Soil adaptable, prefers to grow in moist areas along rivers and streams but also grows well in drier places. Salt- and drought-tolerant. Z3/4. (3-6')

421A Valley Forge American Elm, \$29.00



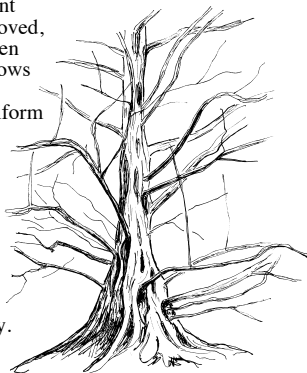
Conifers The Green's Nursery catalog from 1895 quotes the eloquent C. S. Walters on evergreens for the garden: "The object of landscape gardening is to supplement the work of nature by the art of man, and in the modern methods to do this, the evergreen tribe, or shrubs and trees, must come in for their share. In fact, the greens are the backbone, the very essence of lawn and garden ornamentation... Our newly made dwellings, with all the modern improvements, always look stiff and formal compared with the more ancient looking homes, and this is largely due to the fact that the evergreen trees have only been recently planted, and the time has not yet given them size and beauty... It does not pay to transplant too large shrubs or trees, for the roots, which are injured in moving them, frequently devitalize the trees so that they die." Hear, hear!

Abies balsamea Balsam Fir 45-75' Called *popaw*, the pitch tree, in Wabanaki. One of the most abundant of our native conifers. Twigs, inner bark, needles and sap are all medicinal. Small "blisters" contain a transparent aromatic resin that native peoples used as an inhalant for headaches and congestion, and as a salve for cuts and arthritis. Needle tea is rich in vitamin C. The fragrant boughs are a favorite for wreaths; the needles used in scented pillows and potpourri. The best of all conifers for a Christmas tree! Narrow, conical, smooth-barked. Prefers well-drained moist acid soil. Avoid polluted areas. Semi-shade tolerant, slow-growing. Good hedge or specimen tree, songbird nesting area or rabbit thicket. Native from Labrador to upper eastern U.S. Z3. (9-18")

427A Balsam Fir, bundle of 5, \$19.00

Metasequoia glyptostroboides Dawn Redwood 100' One of the most spectacular of the ornamental trees. The wide irregular trunk looks like something out of a fairy tale with its iridescent golden-orange bark that becomes deeply grooved, hollowed and fluted with age. The bright green deciduous needles turn orange in the fall. Grows quickly, up to 50' in 15-20 years, with many small-diameter horizontal branches and a uniform conical habit. Give it lots of space to grow! Highly adaptable, easy to transplant. Prefers moist deep well-drained slightly acid soil in full sun. Will tolerate wet or dry sites. Pollution resistant; good specimen or street tree, rarely needs pruning. Fossils dating back 50 million years have been found in Japan. Thought to be extinct until it was "rediscovered" in central China in 1941. Resembles California redwoods only vaguely. Native to China and Japan. Z4. (1-3')

428A Dawn Redwood, \$15.00



Conifers tolerate a wide range of soil conditions, but prefer a pH between 5.5-6.5. If you are planting in dry or well-drained areas, dip tree roots in Agri-gel solution before planting to protect roots from drying out. Do not use Agri-gel in heavy clay soils or wet areas. Do not soak conifers overnight; a good dipping is sufficient.

Before planting, prune off 1/3 of the roots. Dig a small hole or make an incision with a spade or planting bar and slip the tree in to the level it grew in the nursery, never below. Fan the roots out; do not wind them around in the hole. It is much better to prune the roots than to crowd them in the hole. Water well and pack the earth down with your feet to remove air pockets.

Young conifers need 3/4-1" of rain per week. Periodic deep waterings are far more beneficial than frequent sprinklings. No fertilization is necessary in the first year. In later years you may fertilize around the drip line.

To make evergreens dense and compact, remove central leader and center bud on the end of each side branch.



Picea abies Norway Spruce 80' Fast-growing wide-spreading upright picturesque tree with graceful long pendulous branches that often reach the ground. Largest of the spruces. If you go to the Mt. Auburn Cemetery in Cambridge, MA, don't miss the ancient Norway Spruce just inside the front gate. Several of its massive drooping branches have rooted and turned into secondary trunks. It is truly amazing. Orange-brown scaly bark. Excellent lumber. Showy 4-6" cones. Bright green foliage. Prefers loam but does better than other spruces in poorer soils. Native to northern Europe. Z2. (9-18")

429A Norway Spruce, bundle of 5, \$19.00

P. pungens var. glauca Colorado Blue Spruce 30-60' Very popular specimen tree with truer blue foliage than other varieties. Can be used as a screen, as it is fast growing after 3'. There's a beautiful specimen on a lawn facing the Kennebec River near the Hinckley Bridge that owners have dubbed "Bruce the Spruce." So lovely you might want to name yours. Does not like wet soil. Extra spring nitrogen will improve blue color, which doesn't appear for first few years. Native to western U.S. Z2. (9-18")

431A Colorado Blue Spruce, bundle of 5, \$19.00



Pinus strobus Eastern White Pine 100' or more. The largest northeastern conifer. Magnificent and massive when mature. Smooth greyish-green bark becomes thick, rough and deeply furrowed with age. A cup of pine needle tea has more vitamin C than a cup of orange juice; Native Americans showed early white explorers how to brew it and stave off scurvy. The resin has numerous practical and medicinal applications. Excellent wood with a thousand uses. When grown in abandoned fields, it develops huge curving branches. Grown in the forest it will typically be "clear" for the first 30-80'. Planted thick and sheared, it makes a beautiful hedge that won't drop its lower branches. Likes ordinary to poor—even sandy—soil. Shade tolerant, but does not like salt or roadsides. Fast growing. Native eastern U.S. Z3. ME Grown. (9-18")

433A Eastern White Pine, bundle of 5, \$19.00

Thuja occidentalis Eastern White Cedar 20-60' Also called *Arborvitae*, which means 'tree of life.' Common throughout the entire state of Maine although some stands have been depleted by overcutting. Narrow and tall with twiggy branches, soft fibrous orange-brown bark, and flat foliage unlike that of any other conifer. Foliage and bark tea is high in vitamin C, helps fight infections. Twig decoction makes an antiviral antifungal skin wash. Valuable light fragrant wood, the standard for fence posts and log cabins in Maine. Slow growing, lives up to 400 years. Thrives in rich moist marshy neutral-to-alkaline soils. Good for screens and hedges. A favorite browse of deer. Pruning limbs and leaving them on the ground during a harsh winter helps sustain these animals and is a long-practiced tradition amongst native peoples caretaking the forests of Maine. Z2. ME Grown. (9-18")

434A Eastern White Cedar, bundle of 5, \$19.00

Agri-gel A hydrogel formulation that absorbs and holds water. The swollen crystals adhere to plant roots, reducing transplant shock. Safe, nontoxic, easy to use. Useful for garden seedlings as well as woody plants. Highly recommended for raspberries and conifers. Half-ounce packet mixed with 1 to 3 gallons of water will treat up to 100 cane plants, or 50 trees and shrubs. *Not allowed for organic certification.* 1/2 oz.

L654A Agri-gel, \$3.00



Directions for Ordering

Order online at fedcoseeds.com (click on Fedco Trees).

Or mail your order form to: **Fedco Trees, PO Box 520, Clinton, ME 04927**. Please use a current catalog. And please note our new address!

- Use the 2017 order form; you may submit as many pages as you need: photocopies, forms downloaded from our website, or printouts mimicking our format.

- Keep a copy of your order for your records. To confirm receipt of your order, enclose a stamped self-addressed postcard.

Scionwood orders and rootstock for early shipment: Order online or use the order form on p. 37. More information on p. 16.

- We do not take fax or phone orders.

Volume discounts! if you order by January 13. Sorry, no volume discounts on later orders. Discounts apply only to orders either picked up or shipped to one address. Please see the order form for details.

Group Orders

- We accept group orders online. Group coordinators can click on Group Ordering on the Fedco Trees page for instructions.
- By mail, send us at one time all your members' order forms with one payment and receive the individually packaged orders at one address. The group total earns the discount, if any. Use an additional order form for a group cover sheet. Keep copies of group members' orders.

Payment

We accept check, money order, Visa, MasterCard, AmEx and Discover; payment must accompany all orders. We request that mailed orders under \$25 pay by check or MO. Make your check out to Fedco. We will charge your card when we receive your order. We will bill or refund you for any adjustments as each order is completed.

Sales Tax

Maine residents and pickup customers pay 5.5% on all goods purchased. Maine farmers: Please send us a copy of your farm exemption. Otherwise we must charge sales tax. There is no sale tax for orders shipped outside of Maine.

Handling Charges

We charge \$10 for handling each time you adjust your order. Additions, deletions and cancellations are costly for us to process. You are welcome to place as many separate orders as you wish.

Sorry! You can't have that. Some states have restrictions on imported plants. Please check this list to make sure you're not trying to order something that's restricted in your area.

- We do not ship any plants **outside the U.S.**
- We are currently not shipping any plants to **Indiana**.

AZ: *Carya* spp. Hickory, Pecan; *Juglans* spp. Walnut, Butternut

CA: *Carya* spp. Hickory, Pecan; *Castanea* spp. Chestnut; *Juglans* spp.

Walnut, Butternut; *Pinus* spp. Pine; *Quercus* spp. Oak

CO: *Artemisia absinthium* Wormwood. Some counties prohibit *Prunus* spp. Cherry, Peach, Plum. Please check your county regulations.

CT: *Valeriana officinalis*

FL: *Castanea* spp. Chestnut; *Cornus* spp. Dogwood; *Quercus* spp. Oak

GA: *Vaccinium* spp. Blueberry, American Cranberry

ID: *Humulus lupulus* Hops; *Vitis* spp. Grape

KS: *Juglans* spp. Walnut, Butternut

MI: *Abies* spp. Fir

MT: *Pinus* spp. Pine; *Tanacetum vulgare* Tansy

ND: *Artemisia absinthium* Wormwood

NJ: *Rosa* spp. Rose

NM: *Carya* spp. Hickory, Pecan

NY: *Vitis* spp. Grape

OR: *Buddleia davidii* Butterfly Bush; *Castanea* spp. Chestnut; *Corylus* spp.

Hazelnut; *Humulus lupulus* Hops; *Quercus* spp. Oak; *Ulmus* spp. Elm;

Vaccinium spp. Blueberry, American Cranberry; *Vitis* spp. Grape

SD: *Tanacetum vulgare* Tansy

TX: *Carya* spp. Hickory, Pecan; *Juglans* spp. Walnut, Butternut

WA: *Artemisia absinthium* Wormwood; *Castanea* spp. Chestnut; *Corylus*

spp. Hazelnut; *Humulus lupulus* Hops; *Tanacetum vulgare* Tansy; *Vaccinium*

spp. Blueberry, American Cranberry; *Vitis* spp. Grape

WI: *Tanacetum vulgare* Tansy

Plants in soil medium cannot be shipped to the following states: AK, AL, AR, AZ, CA, CO, HI, IA, ID, KS, MN, MO, MS, MT, ND, NE, NM, NV, OK, OR, SD, TX, UT, WA. The following plants come in soil: *Actinida* spp. Kiwi; *Alcea rosea* Hollyhock; *Arctostaphylos uva-ursi* Bearberry; *Calluna vulgaris* Heather; *Delphinium*; *Digitalis*; *Gaultheria procumbens* Wintergreen; *Iris germanica*; *Mattuecia struthiopteris* Ostrich Fern; *Pulsatilla rubra* Pasque Flower; *Salix* spp. Willow (except Blue Leaf Arctic); *Sisyrinchium* Blue-eyed Grass; *Symphotrichum* Asters; *Vaccinium angustifolium* Lowbush Blueberry Sod; *V. corymbosum* Highbush Blueberry; *V. macrocarpon* American Cranberry; *V. vitis-idaea* Lingonberry



Deadlines

- **Volume discount deadline is January 13, 2017.**

- **Scionwood order deadline is February 17, 2017.**

- **Final order deadline (except scionwood) is March 3, 2017.**

Shipping

See the order forms for pricing details and volume discounts.

- We ship via UPS ground or USPS Priority Mail; our choice based on weight.

- We fill all orders on a first-come first-served basis.

- **Alaska** shipments go via USPS Priority Mail. Please include a postal address. This rate also applies to anyone in the Lower 48 who requires postal delivery.

- **Small & Light shipping** applies only to items with stock numbers beginning with L: perennials, bulbs, strawberries, rhubarb, hops, asparagus, scionwood, and more. If you order any other items in addition to these, you must pay the regular shipping charges.

- **Special Ship Dates:** If you require a specific ship date during our regular shipping time, we charge an additional \$15 to cover our extra handling costs. If you opt for late shipment around **May 3**, the handling charge is \$25 in addition to regular shipping charges.

When will my order arrive? It usually takes a few days for UPS or USPS to deliver orders once they've left our warehouse.

- We begin shipping orders **around March 31**, according to planting zone, continuing for about two weeks, until around April 14.

- Special late shipping date around May 3.

- Scionwood and early rootstock orders ship **around March 16**.

Pickup

- **Pick up your order during our annual Tree Sale** at our Hinckley Road warehouse in Clinton, Maine.

Friday and Saturday, **April 28–29**, are reserved for preorder customers.

- The second Friday and Saturday, **May 5–6**, we are open to the public, and orders are still available for pickup.

- Tree Sale hours are **9:00–3:00 each day**.

- We will send you a pickup reminder and map in April.

- We will offer surplus for sale at the Tree Sale. Sometimes we have stock left over after the Tree Sale, but not after mid-May when we shut down completely and go home to plant.



Substitutions

When dealing with live plants, we can never be certain that we can fill your order. If something becomes unavailable, our default mode is to substitute a similar variety because most people prefer a similar tree or plant to a refund. On the order form, if you indicate you don't want any substitutions, we'll send a refund. If you order apples, please indicate whether you will accept the varieties on similar rootstocks.

Out of Stocks

Some customers wonder why we don't contact them when something on their order is out of stock. We understand the inconvenience. Some of our stock arrives in November to be stored through the winter, but much more of it arrives in early spring just before—or even during—shipping. When we don't know about a shortage until the last minute, it's impossible to contact customers. We do our best to please you, but we'll never be able to compete with the volume offered by big box stores and giant websites. However, we think you'll find we've got them all beat on quality and variety.

Plant sizes

Sizes listed for each item should be considered an average. The trees and shrubs in your order will sometimes be slightly larger and occasionally smaller than these projections. Unfortunately, we can't take requests for particular sizes or branching preferences. But fret not—you will receive healthy trees with excellent root systems. In our experience, smaller trees with well-proportioned roots suffer less transplant shock and wind up out-growing larger stock. If trees were like widgets we could stamp them all out the same on our 3D printer. But these are living things.



Fedco Trees 2017: Trees, Shrubs & Plants

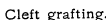
	Item #	Number of pkgs.	Number of plants size	Description	Price per package	Total Price
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2						
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28						
Subtotal (carry to other side)						

If you are ordering more than 28 items, you may copy this page or our format and submit as many pages as you need.

If you order *only* item numbers beginning with L, you qualify for our reduced shipping rate. See other side for details.

Comments:

PO Box 520 Clinton ME 04927



Deliver to:

Name_____

Town _____ St _____ Zip _____

UPS address if different: Street

phone _____ email _____

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$$=$$

Deadline Feb. 17, 2017, for ordering scionwood and rootstock for shipment around March 16, 2017.

Small & Light: You are ordering only scionwood.

If you ordered rootstock and you live in the Continental U.S.

Orders to **Alaska** go Priority Mail; be sure to give a *Postal Address*

Orders to **Alaska** go Priority Mail; be sure to give a *Postal Address*

Priority Mail	\$25.00	over \$125.00, pay 20% of adjusted total
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For larger quantities consider buying by the foot: 10-foot minimum per variety, \$4.50 per foot.

Scionwood quantities are limited, order early. We try to provide wood that is close to 1/4" in diameter. When only smaller diameter wood is available, we send it out. If you do not want smaller diameter wood, please note that on your order and we'll refund your payment.

- **Upon receiving your order**, please inspect your scionwood immediately. Any shipping errors, unlabeled scionwood, or scion abnormalities should be reported to Fedco Trees ASAP.
 - **Store scionwood** in a dark location with temperatures between 32 and 38° in triple plastic bags. Your scionwood should remain viable well into May.
 - **For more information about varieties**, please check our website: fedcoseeds.com/trees.
 - **For grafting supplies and literature**, please refer to the Organic Growers Supply section of the Fedco Seeds catalog.
 - **If you'd like to learn more about grafting**, please join us on March 26, 2017, at The Scionwood Exchange at MOFGA's Common Ground, or check our website in March for a list of spring grafting classes in Maine.
- Help support
the Maine Heritage Orchard**

☐ Donate all my refund to Me

☐ up to \$5.00

☐ up to \$2.00

☐ Donate all my refund to MeHO

 up to \$5.00

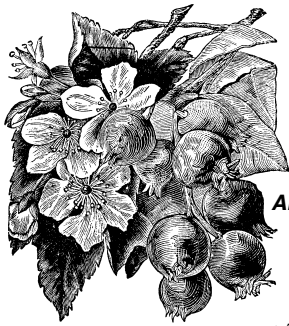
 up to \$2.00

Exp. Date

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Fedco Trees 2017: Scionwood

			How many		How many				How many																																																			
			sticks	feet	sticks	feet			sticks	feet																																																		
Apples					L-858 Harry Masters Jersey			L-898 Red Gravenstein																																																				
L-801 Adams Pearmain					L-859 Hewe’s Virginia Crab			L-899 Redfield																																																				
L-802 Alexander					L-860 Honeycrisp			L-900 Reinette Simarenko																																																				
L-803 Ashmead’s Kernel					L-861 Honeygold			L-901 Rhode Island Greening																																																				
L-804 Autumn Arctic					L-862 Hudson’s Golden Gem			L-902 Rolfe																																																				
L-805 Baldwin					L-863 Hurlbut			L-903 Roxbury Russet																																																				
L-806 Barnhill Sharp					L-864 Hyslop			L-904 Russell’s Russet																																																				
L-807 Beacon					L-865 Jonathan			L-905 Sand Hill																																																				
L-808 Bedan des Parts					L-866 Kavanagh			L-906 Shavel Sharp																																																				
L-809 Belle de Boskoop					L-867 Keepsake			L-907 Sidrunkollane Talioun																																																				
L-810 Ben Davis					L-868 Kennebec Russet			L-908 Smokehouse																																																				
L-811 Bethel					L-869 King David			L-909 Somerset of Maine																																																				
L-812 Bitter Pew					L-870 King of Tompkins County			L-910 Somerset Red Streak																																																				
L-813 Black Gilliflower					L-871 Kingston Black			L-911 Spencer																																																				
L-814 Black Oxford					L-872 Koidu Reinette			L-912 St. Edmund’s Russet																																																				
L-815 Blue Pearmain					L-873 Legace			L-913 Stark																																																				
L-816 Brandywine					L-874 Liberty			L-914 Starkey																																																				
L-817 Briggs Auburn (Waldo)					L-875 Maiden Blush			L-915 State Fair																																																				
L-818 Brown Snout					L-876 Major			L-916 Summer Sweeting																																																				
L-819 Brown’s Apple					L-877 Mantet			L-917 Sweet Red																																																				
L-820 Bullock					L-878 Marlboro			L-918 Sweet Sal																																																				
L-821 Burgundy					L-879 Martha Crab			L-919 Sweet Sixteen																																																				
L-822 Calville Blanc d’Hiver					L-880 McIntosh			L-920 Tolman Sweet																																																				
L-823 Canadian Strawberry					L-881 Medaille d’Or			L-921 Twenty Ounce																																																				
L-824 Centennial					L-882 Milton			L-922 Wagener																																																				
L-825 Charette					L-883 Mollie’s Delicious			L-923 Wealthy																																																				
L-826 Cherryfield (aka Collins)					L-884 Moses Wood			L-924 Westfield Seek-No-Further																																																				
L-827 Chestnut					L-885 Nehou			L-925 Wickson																																																				
L-828 Chisel Jersey					L-886 Newtown Pippin			L-926 Williams Pride																																																				
L-829 Cole’s Quince					L-887 Nodhead			L-927 Winesap																																																				
L-830 Cortland					L-888 Norand			L-928 Winter Banana																																																				
L-831 Cox’s Orange Pippin					L-889 Northern Spy			L-929 Wolf River																																																				
L-832 Dabinett					L-890 Northwestern Greening			L-930 Yarlinton Mill																																																				
L-833 Davey					L-891 Opalescent			L-931 Yellow Bellflower																																																				
L-834 Deane					L-892 Pewaukee			L-932 Yellow Transparent																																																				
L-835 Domaine					L-893 Porter			L-933 Zabergau Reinette																																																				
L-836 Dudley Winter					L-894 Porter’s Perfection			Column 3 Total Total Number Ordered \$Total Sticks (@\$5.00 ea.) \$ \$Total Feet (@\$4.50/ft) \$ (Minimum 10 feet per variety)																																																				
L-837 Ellis Bitter					L-895 Pound Sweet																																																							
L-838 Empire					L-896 Red Astrichan																																																							
L-839 Esopus Spitzenburg					L-897 Red Baron																																																							
L-840 Everett’s Back of the Shed					Column 2 Total																																																							
L-841 Fallawater																																																												
L-842 Fameuse					Scionwood sticks are around 8" long with a 1/4" caliper when possible. \$5.00/stick. For larger quantities, order by the foot (10' minimum) for \$4.50/foot. ROOTSTOCK—bundle of 10 Rootstock is approximately 1/4" caliper. See page 16 for descriptions.																																																							
L-843 Fireside																																																												
L-844 Freedom																																																												
L-845 Garden Royal																																																												
L-846 Geneva Crab																																																												
L-847 Gnarled Chapman																																																												
L-848 Golden Russet (of NY)																																																												
L-849 GoldRush																																																												
L-850 Goodland																																																												
L-851 Granite Beauty																																																												
L-852 Gravenstein																																																												
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L-857 Harrison																																																												
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Small Trees and Shrubs

Green's Nursery catalog from 1904 explains that "there are many trees that by pruning can be made to resemble shrubs, and many shrubs that by different pruning may be made to produce medium-sized trees." Peruse our sidebars for tips on pruning and information about hedgerows.

Amelanchier Also called **Juneberry**, **Parsonberry**, **Serviceberry**, **Saskatoon**, **Shadblow**, **Shadbush** and **Shad**. Folks downeast call it

Wild Pear. Very hardy genus of spring-flowering shrubs and small trees with blueberry-like sweet edible berries. Beautiful fragrant 5-petaled white flowers are early harbingers of spring in Maine. Purplish-black sweet berries good in pies, cobbler, jellies, jams, smoothies and cakes. Berries are about the size of a lowbush blueberry, or a bit larger, and seedier. Historically used by native peoples to make pemmican. Popular with wildlife. Nice red-orange fall color. Thrives along stream beds as well as on rocky slopes. Tolerates partial shade, salt, pollution and wet spots but not standing water. **Considered to be self-fruitful** but we recommend planting with other Amelanchiers to ensure pollination. Note: taxonomically, Amelanchiers are a point of confusion in the nursery trade where common names and even botanical names are used interchangeably. Furthermore, these plants easily hybridize with each other in nature. Below, we've highlighted salient features of each species. (1-3')

A. alnifolia 'Regent' 4-6' x same. Commonly called **Juneberry** or **Saskatoon**. J. Candrian intro, Fairbault, MN, 1997. An open-pollinated seedling originating near Regent, ND. Compact shrub with sweet purple-magenta berries. Fruit ripens in mid-July in central Maine. Plant in well-drained fertile soil and full sun. Foliage somewhat susceptible to leaf spot or rust but this doesn't affect the fruit. Native to northwestern North America. Z2.

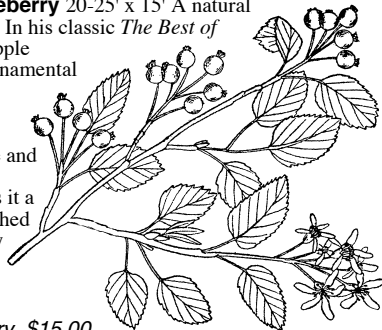
438A **Regent Juneberry**, \$15.00

A. laevis Allegheny Serviceberry 15-25' The most common Amelanchier in Maine. The unique purplish-orange bronzed color of the unfolding leaves on this understory tree is a favorite spring sight. Pendulous white blossoms precede the young leaves and are followed by berries that ripen in midsummer. Referred to as **Shad** or **Shadbush** by old-timers because the blossoms coincide with the spring shad run in certain Maine streams. Likes well-drained acid soils along the edge of fields, streams and roads. Native midwest to eastern U.S. and Canada. Z2. **ME Grown**.

439A **Allegheny Serviceberry**, \$15.00

A. x grandiflora Apple Serviceberry 20-25' x 15' A natural hybrid of *A. laevis* and *A. arborea*. In his classic *The Best of the Hardest*, John Sabuco calls Apple Serviceberry "possibly the most ornamental of all serviceberries." Large white blossoms in spring give way to showy sweet tasty purplish-black fruit. Small foliage emerges purple and then fades to coppery red and eventually to blue-green. Fall turns it a brilliant red-orange. Heavily branched rounded form. Attractive light grey bark. Full sun to full shade and anything in between. Soil adaptable. Z3-4. **ME Grown**.

440A **Apple Serviceberry**, \$15.00



SHAD-BUSH. JUNE-BERRY. SERVICE-BERRY.

Down the boggy meadow, in early March, we can almost fancy that from beneath the solemn purple cowls of the skunk cabbage brotherhood comes the joyful chorus "For lo, the winter is past!" but we chilly mortals still find the wind so frosty and the woods so unpromising that we return shivering to the fireside, and refuse to take up the glad strain till the feathery clusters of the shad-bush drop from the pasture thicket. Then only are we ready to admit that "The flowers appear upon the earth, the time of the singing of birds is come." Even then, search the woods as we may, we shall hardly find thus early in April another shrub in blossom, unless it be the spice-bush, whose tiny honey-yellow flowers escape all but the careful observer.

- from *How to Know the Wild Flowers*
by Mrs. William Starr Dana, 1893



Aronia Chokeberry

Aronia has gotten a lot of press in recent years as a superfruit: it has wonderful medicinal qualities, works well in a range of culinary applications and is an important wildlife plant in the native landscape. Both red (*A. arbutifolia*) and black (*A. melanocarpa*) chokeberries are

edible when cooked, but we emphasize the red for wildlife, while the black may be a better choice for medicine and food. Black chokeberries are commercially cultivated for their high levels of antioxidants and myriad health benefits. Both species are small rounded shrubs with blueberry-sized fruit and electric-red fall foliage.

Begins to bear fruit in its third year and increases to full yield around five years. Ripens in late July or early August. If not harvested, the berries will hang on the bushes until songbirds eat them in late winter. Will form colonies. Not particularly picky about where it grows: adaptable to moist or dry areas, sun or partial shade. Free of diseases and insects. Native to eastern U.S. **Self-fruitful**. Z3/4. All are **ME Grown**. (1-3')

A. arbutifolia 'Brilliantissima' 6-8' x 3-4' In *The Best of the Hardest*, John Sabuco calls red chokeberry "one of our finest native landscape shrubs." Upright multi-stemmed form. Dense clusters of small white flowers with red stamens. Birds love the abundant persistent glossy bright red fruit. With "brilliant" fall foliage, this plant is the best alternative to the invasive burning bush.

442A **Brilliantissima Red Chokeberry**, \$14.50

A. a. Red Chokeberry Seedlings 6-10' x 3-6' Each one is genetically unique. Beautiful in mass plantings and borders. Plant several in a hedge and make the birds happy!

443A **Red Chokeberry Seedling**, \$13.50

443B **Red Chokeberry Seedlings, bundle of 5**, \$55.00

A. melanocarpa 'Galicjanka' 6-8' x 5-8' Research Institute of Pomology in Albigowa, Poland. Interspecific cross between Aronia and European Mountain Ash (*Sorbus aucuparia*). Large dark berries very similar to Viking but with a more condensed and even ripening period, attractive to commercial harvesters. Russian pomologist Ivan Michurin (1855-1935) attempted numerous crosses of Aronia and Sorbus. This is one of them, sometimes called *A. mitschurinii* or *Sorbaronia mitschurinii* in his honor.

444A **Galicjanka Chokeberry**, \$14.50

A. m. 'Viking' 4-6' x same. Introduced in Sweden. Upright vigorous high-yielding shrub produces tasty berries. One of our best-selling chokeberries.

445A **Viking Black Chokeberry**, \$14.50

A. m. Black Chokeberry Seedlings 3-6' x same. Each one is genetically unique. Plant several for an attractive edible hedge.

446A **Black Chokeberry Seedling**, \$13.50

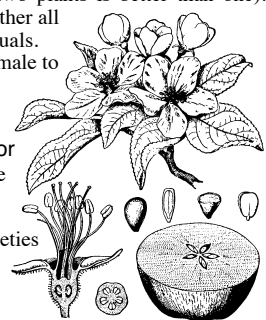
446B **Black Chokeberry Seedlings, bundle of 5**, \$55.00



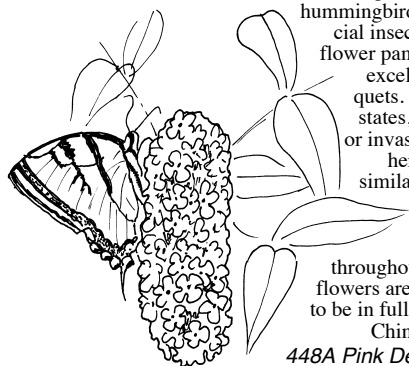
How does all this pollination stuff work, anyway?

Self-pollinating, self-fertile and self-fruitful all mean the same thing. You can plant a self-fertile tree and expect it to pollinate itself and set fruit alone (for example, peaches, pie cherries, apricots). However, many self-fertile trees' fruit sets are enhanced with multiple plantings (elderberries and Amelanchiers). **Self-sterile or self-infertile** means that another tree of a different cultivar or variety is needed to set fruit (cross-pollinate). This is the case with most apples. **Monoecious** (from Greek meaning 'one household') plants have their female and male parts on separate flowers both together on the same plant. In most cases, these plants are self-fertile, but not always! (Black walnuts are monoecious but the male flower releases pollen before the female flowers open, so having two plants is better than one).

Dieocious ('two households') plants have either all male or all female flowers on separate individuals. You would need to plant one female and one male to achieve pollination. When you buy unsexed seedlings, you generally have a 50-50 chance of getting one gender or the other (ginkgo, spicebush, bayberry, persimmon). **Bisexual or perfect** flowers contain both male and female components within the same flower. Some plants with perfect flowers will be self-fertile, some will not. Often, specific cultivars or varieties have perfect flowers but they cannot pollinate themselves and need other varieties to assist them (apples and blueberries).



Buddleia davidii 'Pink Delight' Butterfly Bush 5-8' Boskoop Ag Research Center, Netherlands. Stunning arching shrub attracts butterflies, hummingbirds, bees and a long list of beneficial insects with its luscious fragrant pink flower panicles that reach up to 1' long. An excellent cutflower, charming in bouquets. Foliage is silvery green. In some states, the species is considered weedy or invasive. Because of tender hardiness here in northern New England, it is similar to an herbaceous perennial and will die back to the ground each winter to bloom again on new wood come June. Reblooms throughout the summer until frost if spent flowers are cut. Easy to transplant and likes to be in full sun, well-drained soil. Native to China and Tibet. Z4. **ME Grown.** (1-3')



448A Pink Delight Butterfly Bush, \$14.25

Caragana arborescens Siberian Peashrub 15-20' Nitrogen-fixing cheerful bright green upright multi-stemmed oval shrub well-suited to windbreaks, hedges and borders. Delicate yellow flowers in spring are followed by small seed pods that turn a golden yellow. The pods and the small "peas" are edible; eaten raw, they taste like garden peas, though not as sweet. Makes an acceptable chicken feed. Silvery bark and compound foliage, each with 8-12 small obovate leaflets. Easy to grow; just put them in and let them go. Adaptable to poor soils, drought, salt. Full sun. Maintenance free. Occasionally rumored to be invasive, although ours have stayed put for decades and not spread by seed or root. Self-fertile. Native to Siberia and Manchuria. Z3. **ME Grown.** (1-3')

445A Siberian Peashrub, \$14.25

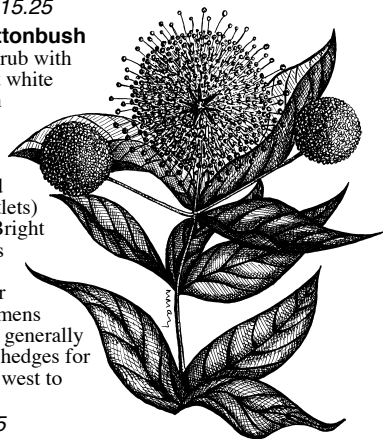
Ceanothus americanus New Jersey Tea 2-3' x same. Small compact shrub bearing white odorless 1-2" long flowers late June into July. Attracts a wide assortment of pollinators, and among William Cullina's top 10 plants for butterfly gardens. On a recent mid-July visit to the Coastal Maine Botanical Gardens in Boothbay, we saw this plant in peak bloom, fizzing with insects, and it was stunning! Dark green narrow leaves were used as a substitute for tea during the American Revolution and long before then for medicine by native peoples. The root bark is deep red and can be used for dyeing wool a cinnamon color. Grows in depleted infertile ground, especially dry acidic conditions. Deep vigorous roots fix atmospheric nitrogen and make it a great candidate for stabilizing sandy slopes. Full to partial sun. Native to North America. Z4. **ME Grown.** (1-3')

451A New Jersey Tea, \$15.25

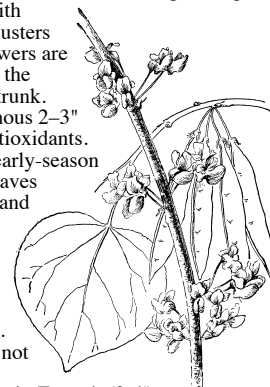
Cephalanthus occidentalis Buttonbush

6-10' x 8' Loose rounded branchy shrub with masses of unusual spherical fragrant white flowers that appear for 4-6 weeks in summer—a magnet for every honeybee around. These highly ornamental blooms the size of ping-pong balls also do well in dried flower arrangements. The seeds (nutlets) make good duck fodder in the fall. Bright green foliage. Often found in masses along the shores of New England's rivers and ponds but also suitable for the garden. We've seen single specimens thriving in well-drained soil, though generally prefers wet areas. Recommended in hedges for naturalizing. Native to eastern U.S., west to New Mexico. Z4. **ME Grown.** (1-3')

452A Buttonbush, \$14.25



Cercis canadensis Redbud 25-30' x same. Small vase-shaped single- or multi-stemmed tree is highly ornamental with edible flowers and seeds. In early spring, clusters of small brilliant purplish-pink pea-like flowers are so abundant they fill the entire tree, dotting the branches and even coming right out of the trunk. Flowers edible raw or cooked. Flat leguminous 2-3" pods have roastable edible seeds high in antioxidants. Nitrogen-fixing tree is also valuable as an early-season nectar plant for bees. Large heart-shaped leaves emerge opaque pink, mature to deep green and turn yellow in fall. Smooth dark bark becomes plated and brick-red with purple undertones. Sun or partial shade, soil adaptable. Fine as a specimen tree or in groups. May need sweating before planting to break dormancy, instructions on page 67. Native to central and eastern U.S. and may not reach full maturity size in northern areas. Customers report that it is reliably blooming in Zone 4. (2-4')



453A Redbud, \$16.00

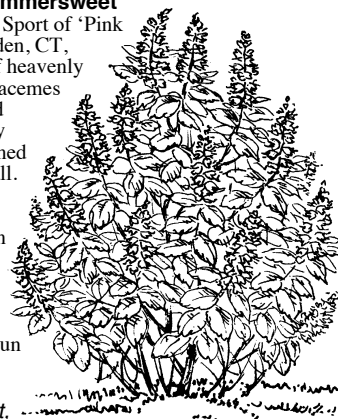
Chionanthus virginicus White Fringetree 6-30' x 30' Large multi-stemmed shrub or small tree with an open spreading rounded form. So completely covered with lightly fragrant clouds of white drooping tassels in spring you can hardly see the glossy rich dark green oval 3-8" leaves. Truly unique and exquisite as a small specimen tree that only grows lovelier with age. Will begin blooming 3 or 4 years after planting. Small bluish-black fruit sought by birds. Bark is used medicinally for wounds and ulcers, and leaves contain polyphenols in similar quantity to olive leaves. There are some amazing old trees at the Mt. Auburn Cemetery and at the Brooklyn Botanic Gardens. The one in Brooklyn has a nearly 30' spread! May not reach this size in northern climates. Adaptable, but prefers moist fertile acid soil. Tolerates air pollution; does well in cities. Native of eastern U.S. Z4. **ME Grown.** (1-3')

454A White Fringetree, \$17.50

Clethra alnifolia 'Ruby Spice' Summersweet

or **Sweet Pepperbush** 4-5' x same. Sport of 'Pink Spires,' Broken Arrow Nursery, Hamden, CT, 1992. Red buds and beautiful spires of heavenly scented deep-pink flowers appear on racemes for six weeks in midsummer. Bees and butterflies love it. Whorls of extremely attractive finely serrated distinctly veined dark green foliage turn deep gold in fall. Dangling racemes of "black peppercorns" persist into the next growing season. Erect oval habit, often suckering to form dense colonies. Slow growing. Prefers acid moist well-drained soils. A good shrub to border streams and ponds. Will tolerate salty coastal conditions. Full sun to shade. Easy to grow. Species native Maine to Florida. Z3. **ME Grown.** (1-3')

455A Ruby Spice Summersweet, \$15.25



I listened hopefully for more; it was this peculiar wisdom that made one value Mrs. Todd's pleasant company. "There's sometimes a good hearty tree growin' right out of the bare rock, out o' some crack that just holds the roots;" she went on to say, "right on the pitch o' one o' them bare stony hills where you can't seem to see a wheel-barrowful o' good earth in a place, but that tree'll keep a green top in the driest summer. You lay your ear down to the ground an' you'll hear a little stream runnin'. Every such tree has got its own livin' spring; there's folk made to match 'em."

- from *The Country of the Pointed Firs* by Sarah Orne Jewett

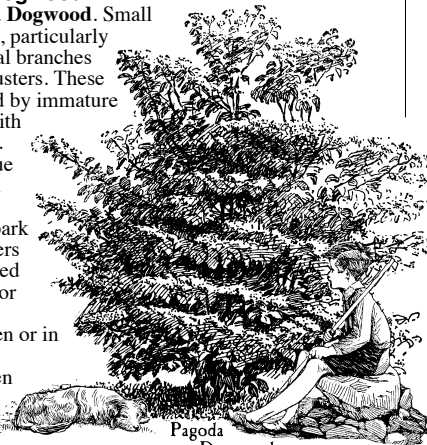


Hedgerows Provide:

- forage for birds, bees, butterflies, hummingbirds, moths, beneficial insects and humans
- protection for nesting birds and migratory animals
- erosion control and water conservation
- privacy screens, windbreaks, mazes or secret gardens
- texture, aroma, character and color in a cultivated landscape
- renewable material for kindling, crafts, bouquets and wood chips

Cornus alternifolia Pagoda Dogwood 20' x 30-35'

Also known as **Alternate-Leaved Dogwood**. Small tree or large multi-stemmed shrub, particularly beautiful with its tiers of horizontal branches and fragrant white 2-3" flower clusters. These appear in mid-late spring followed by immature olive-green berries, each tipped with a tiny bright yellow style remnant. In midsummer clusters of dark blue berries ripen above the blue-green foliage. One of the most popular dogwoods with the birds. Roots, bark and inner bark all medicinal. Prefers partial shade and moist well-drained acid soil, but tolerates full sun, poor soil and even clay. pH adaptable. Excellent naturalized as a specimen or in groups. Reddish-purple fall color. Susceptible to golden canker: when dormant, prune out diseased branches to prevent spores spreading to the trunk. Native to eastern U.S. Z3. **ME Grown.** (1-3')

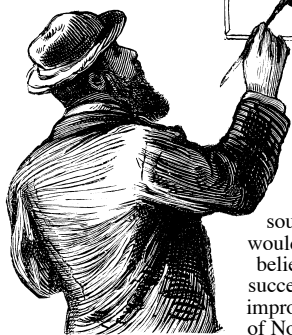


456A Pagoda Dogwood, \$15.50

C. mas Cornelian Cherry 20-25' x 15-20' Gaining popularity in the U.S., the fruits of this Old World gem have been harvested by humans for thousands of years. Bright red pear-shaped edible "cherries" set heavily in late summer. Let them ripen to their full sweet potential before picking. Clusters of small delicate yellow flowers cover the leafless tree in early spring for a striking show before the



forsythias even think of waking up. Long-lived large shrub with upright rounded habit makes a great edible hedge or can be pruned to a small tree. Nutritious, medicinal, high in vitamin C and good in jam, syrup, tarts, fruit leather and wine. The wood is hard and strong, once used for spears and wheel spokes. This plant has it all. Prefers well-drained soil and full sun but otherwise adaptable. Likely to bear fruit in 2-3 years. Of the two cultivars listed, Fedco friend and consultant Tom Vigue says, "Pioneer may sound like the more worthwhile of the two, but I wouldn't be without Elegant. It is truly delicious. I believe having two cultivars improves pollination success." **Partially self-fertile**—plant multiples to improve yields. Grafted and grown by Seth Yentes of North Branch Farm. Native to Europe and Asia. Z4/5. All are **ME Grown.**



C. m. 'Elegant' Bred by Svetlana Klimenko, a Ukrainian botanist at the Central Botanic Garden in Kiev. Selected for good fresh-eating flavor. Ripens around the third week of August in Maine. Picking window lasts between two and three weeks. Fruits are about 1 1/4" long with a very slender elongate shape. Soft flesh is tricky to pit so best eaten out of hand. (2-5')

457A Elegant Cornelian Cherry, \$25.00

C. m. 'Pioneer' Another Klimenko intro with good flavor. More tart than Elegant but better for processing. Ripens around the first week of September in Maine, about one week after Elegant. Picking window lasts for three or four weeks. Fruits mature to about 1 1/2" long and have a pronounced fat pear shape. Firm flesh is easy to pit. (2-5')

458A Pioneer Cornelian Cherry, \$25.00

C. m. Cornelian Cherry Seedlings Each one will be unique. Plant several for genetic diversity. They will pollinate each other and any named cornelian cherry cultivar. (1-3')

459A Cornelian Cherry Seedling, \$15.50

459B Cornelian Cherry Seedlings, bundle of 5, \$65.00

Cultivars and varieties

Cultivar is short for 'cultivated variety.' A **cultivar** is a plant that has been bred; it does not occur naturally in the wild.

A **variety** is a plant that occurs naturally in the wild and is chosen for commercial propagation to maintain its genetic characteristics.

In the nursery trade, the terms 'cultivar' and 'variety' are mistakenly used interchangeably. Both cultivar and variety names follow the botanical name (*Genus species*) and are enclosed in single quotes.

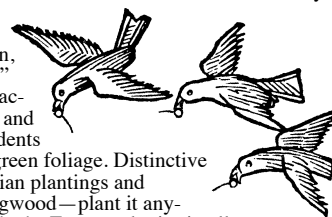
In the tree and shrub world, most cultivars and varieties are propagated clonally by cuttings or grafting. When there is no variety or cultivar name after the botanical name, the plant is most likely grown from seed. We often refer to these as "the species" of a plant, or as seedlings.



C. racemosa Gray Dogwood 3-8' x 10-15' Also called **Northern Swamp Dogwood**. Native multi-stemmed thickly branched suckering shrub with rounded domes of small 4-petaled white flowers that bloom in early summer; they look like small hydrangea panicles and will attract many pollinators. White berries appear in autumn, set off by bright red fruit stalks. "Spent" pinkish inflorescences, particularly attractive in winter, look like miniature trees and are sometimes used by architecture students in models. Simple elongated medium-green foliage. Distinctive gray bark. Useful for windbreaks, riparian plantings and attracting birds. The most adaptable dogwood—plant it anywhere and it will grow. Sun or partial shade. Forms colonies in all directions, so choose planting location wisely. Native to eastern U.S. and southern Canada. Z4. **ME Grown.** (1-3')

460A Gray Dogwood, \$15.50

460B Gray Dogwood, bundle of 5, \$65.00



C. sericea Redosier Dogwood 8-10' Formerly called **C. stolonifera**. Broad loosely rounded multi-stemmed shrub spreads freely by stolons (underground stems) and forms excellent hedges and borders. Most admirable in the winter when the masses of brilliant red stems contrast a backdrop of freshly fallen snow. Bring them inside and enjoy them in wreaths and arrangements. By June, the stems are hidden by dark green foliage and sprinkled with tiny 4-petaled star-shaped flowers. Whitish berries in 2-3" clusters are popular with dozens of bird species. One of the most valuable of our native wildlife plants. Perfect for swamps, streams and wetlands. Very adaptable to a range of soils and climates, but generally likes wet conditions. Sun or partial shade. Fast growing and easy to transplant. To improve stem color, prune out older stems in the spring. Native to eastern U.S. Z2. **ME Grown.** (1-3')

461A Redosier Dogwood, \$15.50

461B Redosier Dogwood, bundle of 5, \$65.00

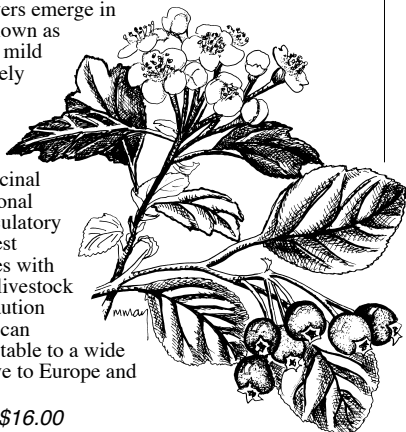


SAVE THE FAECES!

Night Soil contains all the elements of every plant, and in a state of combination which proclaims it to be superior. Why do we neglect it? Why, on the contrary, do we divert it to the worst of purposes? Were it duly collected, condensed, and applied, our farms would require no foreign appliances, no expensive importations, or spurious attempts at imitation.

- from *American Agriculturist*, 1843

Crataegus laevigata English Hawthorn 15-20' x 12-20' Shrubby thorny low-branching dense tree with glossy deep-green lobed foliage. Upright oval form. Small white flowers emerge in early spring followed by 1/2" fruit known as "haws," which redden in fall. Mealy mild fruit contain 2-3 nutlets and are largely undesirable for fresh eating, though commonly processed for medicinal tea, tincture, syrup or other preserves. In fact, leaves, buds, flowers, fruit and seed all have medicinal properties. This species is the traditional hawthorn used for centuries as a circulatory and cardiovascular tonic herb. Harvest berries by cutting off loaded branches with pole pruners. Traditionally used for livestock hedges throughout the world. Use caution around the very sharp thorns, which can puncture tractor tires or shoes! Adaptable to a wide range of soils. Prefers full sun. Native to Europe and N. Africa. Z4. (1-3')



465A English Hawthorn, \$16.00

465B English Hawthorn, bundle of 5, \$65.00

Cydonia oblonga Quince 10-25' A small tree with large aromatic tan or yellowish fruit shaped like a cross between a pear and an apple. Usually eaten in stews, marmalades and jellies. Sometimes added to hard cider. At one time, every Maine dooryard had a quince. Cultivated for millennia, the "golden apple" has quite the history: in ancient times, a gift to Greek brides on their wedding day; in colonial American homesteads, a staple pectin fruit; in Edward Lear's classic, the Owl and the Pussycat's picnic treat. Large white to pink flowers. Wood of mature trees becomes impressively gnarled and twisted. Similar soil requirements to other fruit trees. Plant in full sun and space 16' apart. Prune like an apple tree. Needs protection from apple borers. Susceptible to fireblight. Fruit may not ripen in coldest areas. Not to be confused with Flowering Quince, the ornamental shrub *Chaenomeles*, which has smaller fruit. **Self-fruitful but** planting more than one will give better yields. Native to Asia. Z4/5. (2-5')

C. o. 'Aromatnaya' A hardy Russian variety, bred for disease resistance. Fedco grower Carol Armatis gave us jelly she made from this cultivar, which she has growing in Newport. It was fantastic! Citrusy, fragrant with an orangey-pink hue—not like anything we've tasted.

466A Aromatnaya Quince, \$29.25

C. o. 'Orange' Also known as **Apple Quince**. Medium-large rounded bright yellow fruit with smooth skin. Orangish-yellow flesh with hints of orange in the flavor. This old culinary favorite ripens early. Green's Nursery catalog from 1895 calls Orange quince "one of the most beautiful of all fruit-bearing trees, both in blossom and when laden with the golden-hued fruit, beautiful as a dream, both in color and in form."

467A Orange Quince, \$29.25



Quince in Maine Quince are a rare commodity in Maine—they're not easy to grow here, especially inland, but not impossible. Carol Armatis is successfully growing quince in Zone 4 Newport, ME, despite some of the coldest winters in decades. She gave us her jelly recipe:

Carol Armatis's Quince Jelly

4 lbs quince, about 8-10, peeled, cored, seeded

7 c. water

4 c. sugar

lemon optional

- Pick quince slightly under-ripe so they aren't dried out.
- Cut into very small pieces and combine with sugar and water in a saucepan.
- Simmer on medium-high heat for about 3 hours.
- Rosy color will deepen. Use plate test* to determine when finished.
- Strain through a cheesecloth or sieve, and can as you would any jelly. For more of a jam or spread, skip the straining.

* The plate test: Dab a little hot jelly onto a frozen plate and let it rest for 30 seconds. The jelly should be soft and move slightly or wrinkle. If too soft, simmer for 5 more minutes and test again.

BUSH HONEYSUCKLE

This pretty little shrub is found along our rocky hills and mountains. The blossoms appear in early summer, and form a good example of nectar-bearing flowers. The lower lobe of the corolla is crested and more deeply colored than the others, thus advising the bee of secreted treasure....When the blossom has been despoiled and at the same time fertilized, for the nectar-seeking bee has probably deposited some pollen upon its pistil, the color of the corolla changes from a pale to a deep yellow, thus giving warning to the insect-world that further attentions would be useless to both parties.

- from *How to Know the Wild Flowers* by Mrs. William Starr Dana, 1893

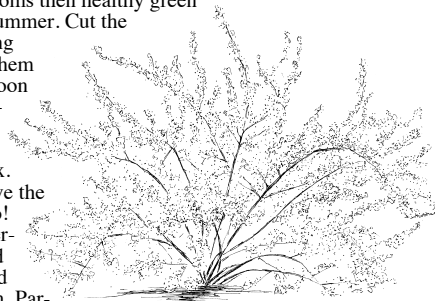


Diervilla lonicera Northern Bush Honeysuckle 2-4' x 2-5' Also called **Dwarf Bush Honeysuckle** Every time we've visited the Diervilla in grower Sharon Turner's garden, it's buzzing with bumblebees. Five little bright yellow petals on each tubular flower curl open and away, an invitation to insects, hummingbirds, butterflies and garden tourists. Clusters of flowers form in the axils of new growth. Extended-season bloomer. Long pointed lustrous dark green leaves emerge with a hint of bronze. Good for erosion control or mass planting. Bark, roots and leaves were used by native tribes as a diuretic and to treat eye problems. We've become fond of the wild specimens popping up around our homesteads. Full sun to light shade. Tolerates even the poorest soils, but if you want it to naturalize, give it rich moist soil. Pest and disease free. Native to eastern North America. Z3. **ME Grown.** (1-3')

471A Diervilla, \$14.25

Forsythia ovata x F. europaea 'Meadowlark' Forsythia 6-11' x same. ND St U, 1986. Welcoming everyone to spring, from Mile One on the Maine Turnpike to the potato prairies of The County, forsythia means the end of another long winter and the birth of color. Meadowlark is one of the most reliably flowering, with bud hardiness to -35°. Semi-arching habit, showy bright yellow blooms then healthy green foliage throughout the summer. Cut the branches in earliest spring before they flower, put them in a vase of water, and soon you'll have the first bouquet of the year. Don't be fooled by non-hardy imitations at the Big Box. If you want blooms above the snow line, shop at Fedco! Adaptable, prefers moderately fertile, slightly acid to neutral soils with good drainage. Best in full sun. Parentage from Korea and Europe. Z3. (1-3')

474A Meadowlark Forsythia, \$14.25



ON HAWTHORN HEDGES

By far the most important use of the thorn is for the formation of hedges. The fact that so large a number of thorn trees are natives of this state, and found flourishing in every dry situation, in almost all kinds of soil, shows that they may be used for this purpose, with as much certainty as in England or on the continent of Europe. The time has not yet come, and, in those parts which are full of stones, it may never come, when hedges will take the place of wood and of stone for enclosures, as entirely as they have in England. But in many situations, in every part of the state, they might, even now, be introduced with great advantage and great beauty. About country houses and gardens, where it is desirable to avoid the stiff appearance of close wooden enclosures, the roughness of stone, and the slovenliness of the straggling fence, a hedge of thorn is a most desirable substitute. The experiment has been successfully tried, in the vicinity of Boston, often enough to show its practicability and its advantages. And in such situations the hedge would answer the double purpose of a fence and a row of fruit and ornamental trees. Pears, apples, and quinces, might be grafted into the largest stocks, and the mountain ash, and the wild sugar pear, add their rich bunches of fruit in winter, and their graceful and rich flowers in early spring.

- from *Trees and Shrubs of Massachusetts*, a report by the Commissioners on the Zoological and Botanical Survey of the State, 1846



Hamamelis virginiana Witch Hazel 8-20' x same. A small irregular rounded fall-flowering medicinal tree or large shrub. Makes a soothing astringent with a seemingly endless number of uses from controlling acne to soothing diaper rash, baggy eyes (yes!), poison ivy, chicken pox, even an unhappy lovelife. Thayer's Witch Hazel Astringent is still available in your local drug store. Most preparations involve simply brewing tea from the leaves and/or twigs. Oval hazel-like textured foliage. Brilliant golden-yellow fall color. Quirky yellow flowers appear in early to mid November. "Witch" is said to refer to the odd flowering time or maybe it's because dowsers like to use the interesting forked branches to "witch" for water. Full sun or shade. Prefers moist acid soils; avoid dry spots. No pests or diseases, does well with very little care. We do nothing to ours and it looks better and better every year.

Native Canada to Georgia. Z3. (1-3')

475A Witch Hazel, \$16.00

Heptacodium miconioides Seven-son Flower 10-20' x 8-10'. Arnold Arboretum, 1980. Small showy multi-stemmed tree or large shrub with panicles of sweetly fragrant whorled clusters of seven small white flowers in late summer when no other trees are in bloom. Bees love it. The flower sepals turn pink and persist, contrasting with the distinctive green foliage: long, pointed, curved and folded, hanging in clusters. Attractive exfoliating bark and horizontal branching. In 1907 EH Wilson, plant-explorer in Hubei province of China, was the first westerner to note the tree. More than 70 years later seeds were finally brought to Boston, and

Seven-son Flower is gaining popularity in the U.S. There's an extremely nice specimen up on the terrace at Tower Hill Botanic Garden in Massachusetts. Full sun to partial shade. Slightly acid moist well-drained soil, but adapted to wet clay and dry conditions. Native to China, though it may no longer exist in the wild. Z4/5. (1-3')

476A Seven-son Flower, \$17.50

Hydrangea paniculata 'Tardiva' 8-12' x 7-10' Upright terminal white flower panicles 6-8" long are comprised of showy sterile flowers and smaller fertile flowers. Elegant blooms July-September are fantastic fresh or dried and develop a pinkish blush with cooling temperatures. Blooms on current season's growth so can be pruned in late winter or early spring. Reducing the number of shoots will increase flower size. Vigorous plants like rich, moist well-drained soil and thrive in full sun to partial shade. *H. paniculata* is one of the hardiest hydrangea species. Difficult to kill. Native to Asia. Z3. (1-3')

477A Tardiva Hydrangea, \$14.25

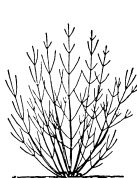
ME Grown = grown in Maine at one of our small local nurseries

Prune Ornamental Shrubs, Trees and Berries for:

- **Rejuvenation:** older canes (three years and older) can be cut off at the ground line each year to encourage the growth of new canes.
- **Health:** remove broken, dead or diseased branches for neatness and vigor and to increase airflow and access to sunlight.
- **Vitality:** prune to encourage better blooms and fruit rather than heavy excessive vegetation. Many shrubs send up new vegetative growth from the terminal bud. Pruning the terminal bud redirects the plant's energy back to some of the lateral flowering and fruiting buds.
- **Containment:** certain varieties sucker from the roots; remove these suckers unless you want the shrub to spread and form colonies.
- **Shape:** if you desire a tall tree with a high crown, prune the lateral branches from the trunk and prevent formation of low crotches. For a low stocky tree used in screens and windbreaks, cut back the top shoots to force side growth. Retain a natural arching habit and prevent your shrub from becoming top-heavy by pruning branches after flowering.



BEFORE



AFTER

Ilex verticillata Winterberry Also called **Black Alder**, **Fever Bush**, **Possumhaw**, **Swamp Holly** and more. Deciduous suckering medicinal holly with clusters of upright stems. Best known for profusions of bright red $\frac{3}{8}$ " berries that stand out after the leaves fall—they keep their color all winter, spectacular against the snow. A staple of the Maine landscape, providing late-spring forage for birds. Lustrous deep green leaves retain their color long after they're cut for decoration. Richly foliated, but open enough to display interesting branch structure. Leaves used for tea and tonic, astringent bark used in herbal medicine. Tolerates dry conditions but prefers moist or wet acidic soil, even standing water. Sun or partial shade. No serious pests or diseases. **Male and female plants required for fruit**, which is produced on female plants. Plant males within 30' of females. Native from midwestern to eastern U.S. Z4. All are **ME Grown**. (1-3')

I. v. 'Sparkleberry' 12' x 8-12' **Female**. Introduced by the National Arboretum. Abundant bright red berries persist late into winter. Large upright form with spreading habit. **Southern Gentleman male required for pollination.**

478A Sparkleberry Female Winterberry, \$14.25

I. v. 'Winter Red' 9x8' **Female**. Mid-sized with darker green foliage. Winner of the 1995 Styer Award. **Southern Gentleman male required for fruit.**

479A Winter Red Female Winterberry, \$14.25

I. v. 'Southern Gentleman' 6x6' **Male** selection to pollinate Winter Red or Sparkleberry. Don't be deceived by the name—it's hardy. One will pollinate several females.

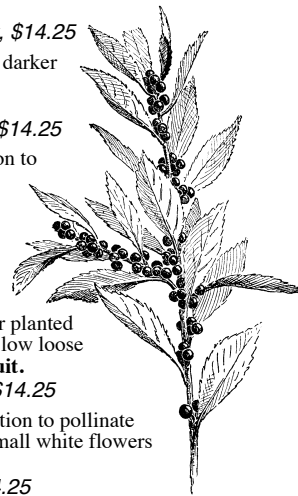
480A Southern Gentleman Male Winterberry, \$14.25

I. v. 'Red Sprite' 3-5' x 4-8' **Female**. USDA intro. Dwarfing variety great for smaller spaces or planted with larger winterberries for variation. Attractive low loose rounded form. **Jim Dandy male required for fruit.**

481A Red Sprite Female Winterberry, \$14.25

I. v. 'Jim Dandy' 3-6' x 4-5' **Smaller male** selection to pollinate Red Sprite. One will pollinate several females. Small white flowers line branches in mid-July.

482A Jim Dandy Male Winterberry, \$14.25



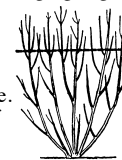
Lindera benzoin Spicebush 6-12' x 8-12' Large rounded multi-stemmed native shrub suited to naturalizing in moist or wet areas, singly or in groups. Soft-yellow flowers early in spring followed by small clusters of glossy red berries by mid to late summer. Blue-green foliage turns golden yellow in fall. Edible berries and medicinal twigs and bark. Scratch the berries, foliage or stems and you'll know how it got its name: all three have a delicious lemony spicy scent and can be used as a native alternative to allspice. Leaves, twigs and fruit used in teas. Attracts bees, birds and butterflies. Prefers moist well-drained neutral or slightly acidic soils. Often found in full or partial shade, but at its showiest in full sun. We thought one had died a few years ago and dug it up, only to find that the roots were alive and ready to go. These are unsexed seedlings: **male and female plants required for fruit** so plant several for best results. Native to eastern U.S. Z5. (1-3')

485A Spicebush, \$14.25

485B Spicebush, bundle of 5, \$62.00

A few pruning guidelines:

- **Summer-Flowering Shrubs** should be pruned in late winter or early spring, before the new wood begins to grow. These shrubs blossom on the new wood they produce in the spring.
- **Spring-Flowering Shrubs** form flower buds in the summer, after they are finished blooming. Prune them immediately after their bloom is over. If you wait and prune them in the winter or following spring, you will likely remove many flowering buds.
- A common error is to prune or shear shrubs straight across the top. This encourages top-growth and the lower part of the shrub becomes woody and unsightly with less foliage. Proper pruning promotes growth at the base of the shrub.
- Observe your plants and see what they need. Some trees and shrubs benefit from aggressive pruning each year and might even respond well to being cut all the way back to the ground; others will respond by delaying fruit or blossom. Some plants thrive with little or no pruning.
- Overgrown shrubs with little foliage near the base may be rejuvenated by cutting canes down to the ground in early March, even though early blooms may be sacrificed that year. They will send forth new shoots in late spring and will be bushy with foliage clear to the ground. Pinch off tops when the desired height is attained. It usually takes two to three years to rejuvenate shrubs and hedges completely.



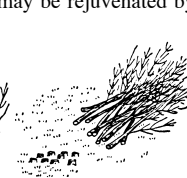
WRONG



RIGHT



BEFORE



AFTER

Malus Flowering and Culinary Crabapples A crabapple is any apple with fruit smaller than 2" in diameter. Some crabs bear edible or culinary fruit. Some have persistent wildlife fruit that hangs on the tree for weeks or even months. Others have hardly any fruit at all. The flowers, tree form and even the shape of the leaves can vary subtly or profoundly. Most are magnificent in bloom and are often ornamental year round, especially in winter when the leaves drop and the trees show off their interesting forms. Although crabs prefer full sun and deep well-drained soils of 5.5–6.5 pH, they are quite forgiving and will thrive in many locations with a little TLC. They don't like to be drowned or starved for water, and they *do* need to be protected from borers, mice and deer. See instructions on pages 69 and 70.

Most crabapples require little or no pruning except when a branch is broken or you feel compelled to shape your tree in one way or another. We like to encourage each tree to assume its own unique form. (3-6')

All crabapple trees need a second variety for pollination, but any apple or crabapple blooming at the same time, within 1/4 mile, will probably do.

Crabapple Collection An assortment of five crabapples selected by Fedco's John Bunker. Most will be from this year's catalog but a few rare surprises may be included.

492A Crabapple Collection, bundle of 5, \$135.00

Dolgo 25x30' From seed collected by NE Hansen of *M. x robusta* in 1897 at the Imperial Botanical Gardens, St. Petersburg, Russia. (*Dolgo* means 'long' in Russian.) Introduced in the U.S. in 1917. The classic culinary crab still found in old Maine backyards. Apricot-pink buds, large fragrant 2" pure white single flowers bloom early. Beautiful purple-red 1 1/2" teardrop-shaped fruit makes flavorful clear ruby-red jelly. In recent years the aromatic very sweet, very acidic fruit has found favor with cidermakers. Also useful for canning, pickling and delicious sauce. Vigorous large blocky upright spreading tree consistently yields abundant summer crops. Dependable pollinator for all apples. Very hardy. Z2.

497A Dolgo Crabapple on standard, \$29.25

497C Dolgo Crabapple on M111, \$29.25 ME Grown.

Full Sails 12x10' No. 86-221 (Angel Choir x Amberina) John Fiala intro, Falconskeape, Medina, OH. Small upright spreading form, recommended for a small space. Pale pink buds and large semi-double flowers open pink, eventually turning all white. The effect is a tree entirely covered with a wonderful wash of mottled light pink. Half-inch red fruit persists into November. Showy in bloom and showy in fruit. Clean bright green foliage. Blooms annually. Disease resistant. Probably Z3. **ME Grown.**

500C Full Sails Crabapple on M111, \$29.25

Honey Crab 25x20' Unknown origin. Fairfield, ME. Very old culinary variety suitable for jellies and pickles. One of the oldest remaining trees at The Apple Farm in Fairfield. Its true identity (if it has one) may never be known. Marilyn calls it simply "Honey Crab" for its wonderful sweet fruit. The small (1 1/4–1 1/2") light yellow fruit is blushed with small red dots and fine red stripes, sometimes with a small russet splash. Yellowish flesh. Ripens about Sept. 15 in central Maine. Single white blossoms. Highly productive long-lived tree will grow very large if allowed. Z3. **ME Grown.**

501C Honey Crab on M111, \$29.25

Indian Magic 15x15' Unknown origin. Robert Simpson intro, Vincennes, IN. One of the best of all the pinks, an outstanding showy ornamental tree with a well-deserved great reputation. Beautiful in every season. Red buds open to single deep rose-pink flowers. Abundant attractive small elliptical bright glossy red long-stemmed fruits with a slight orange blush turn full orange in late fall and persist all winter, attracting birds. Dark green foliage also turns brilliant orange in fall. Rounded open form. Rarely affected by scab. Midseason bloom. Z4. **ME Grown.**

502C Indian Magic Crabapple on M111, \$29.25

Mary Potter 15x30' (*M. sargentii* 'Rosea' x (*M. x atrosanguinea*)) Karl Sax intro, Arnold Arboretum, Boston, MA, 1939. A magnificent and very rare variety with an apricot-white bloom, a beautiful shape and masses of red persistent fruit for the birds. Although the tree is not very tall, it is quite wide with branches broadly arching to the ground and then sweeping upward. Be sure to give it plenty of space. The red buds retain their color while the strongly fragrant single white blossoms open revealing the bright yellow stamens that add an apricot hue to the entire tree in bloom, a mass of flowers with no foliage visible at all. Named in honor of CS Sargent's daughter. Considered by many to be Sax's best introduction. Good disease resistance. Z4. **ME Grown.**

503C Mary Potter Crabapple on M111, \$29.25

ME Grown = grown in Maine at one of our small local nurseries

Molten Lava 12x15' Complex cross including Firedance, Little Troll and Red Peacock. John Fiala intro, Lake County Nursery Exchange, Ohio, 1980. Wide spreading semi-weeper. Dark red buds. White single flowers. Brilliant orange-red persistent 1/2" fruit. Yellowish smooth bark. Beautiful in form, flower and fruit. John Sabuco raves about it in his wonderful book *The Best of the Hardest*. Annually flowering and disease resistant. Z3. **ME Grown.**

504C Molten Lava Crabapple on M111, \$29.25

Prairifire 20x20' *M. hupehensis* seedling. DF Dayton intro, Dept of Horticulture, U of IL, Urbana, 1982. Iowa Tree of the Year in 1996. Considered to be the reddest flowering crab. Red buds, large single rose-pink-red flowers and 1/2" persistent red fruits that do not drop. Excellent for wildlife. The foliage matures from red-maroon to deep green over the season. One customer wrote us calling Prairifire "the prettiest thing you've ever seen." Upright spreading rounded tree. Rarely shows any problems from scab or other diseases. Z4.

505A Prairifire Crabapple on standard, \$29.25

505C Prairifire Crabapple on M111, \$29.25 ME Grown.

Purple Prince 20x20' No 85-20-R2 (Bluebeard x Liset) John Fiala intro. Falconskeape, Medina, OH, 1970. Heavy annual blooms of single purple-pink flowers. Purple-bronze foliage. Named when Prince Rogers Nelson was only twelve. Did Fiala have a premonition? Celebrate the pop legend right in your own back yard. Half-inch blue-purple persistent fruit for your birds who'll be delighted to celebrate with you. Small round-spreading slightly disheveled tree with nice open branch structure. No scab or other diseases. Hardy north of Minneapolis. Z3.

507A Purple Prince Crabapple on standard, \$29.25

507C Purple Prince Crabapple on M111, \$29.25 ME Grown.

Red Swan 10x14' 'Molten Lava' x [(Red Jade x Lemoine) x *M. toringoides*] John Fiala intro, Falconskeape, Medina, OH, 1989. Originally called Red Snow. Reddish-pink buds and 1 1/2" brilliant white flowers. Masses of small elliptical bright red persistent fruit hang until January. Golden-yellow fall foliage. Wide mop-topped disheveled weeping form with long fine graceful branches. Annual bloomer. Fiala considered it one of his best introductions. Highly disease resistant. Z4. **ME Grown.**

508C Red Swan Crabapple on M111, \$29.25

Sarah 15x15' (Autumn Glory x Angel Choir) John Fiala intro, Falconskeape, Medina, OH, 1990. Small white cup-shaped semi-double flowers with showy yellow stamens look like miniature roses or maybe snowdrops covering the entire upright-rounded tree. Half inch orange-red showy persistent fruit. Dark green foliage. Annual bloomer. Disease free. Z3. **ME Grown.**

510C Sarah Crabapple on M111, \$29.25

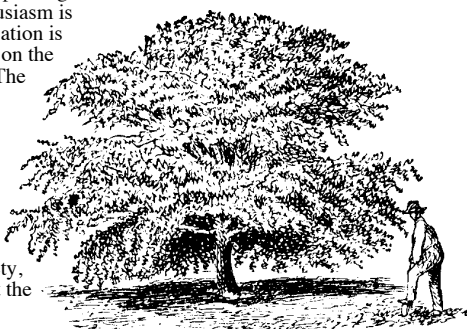
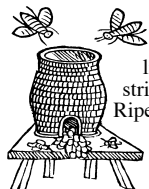
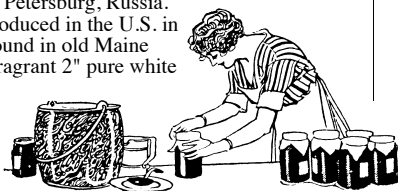
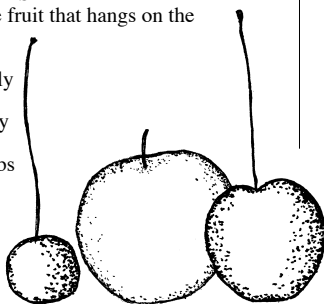
Sargent Crabapple, Mt. Auburn strain 8-10' x 20-30' *M. sargentii* Arnold Arboretum, 1892. Seed collected in Hokkaido, Japan, by one of America's most famous horticulturists, CS Sargent. A species rather than a variety, many of the Sargents have been started from seed; hence the variability. This one comes from the front entrance of the Mt. Auburn Cemetery in Cambridge, MA. Densely and horizontally branched from the base with no tendency to develop a central leader. Barely 8' tall and over 30' wide, a delightful jumble of twists and curves—like a dozen connected pretzels trying to out-pretzel each other. Pink buds and profuse pure-white fragrant single flowers seem to bloom forever. Very small dark red-purple persistent fruit. Disease resistant. Z4.

511A Sargent Crabapple on standard, \$29.25

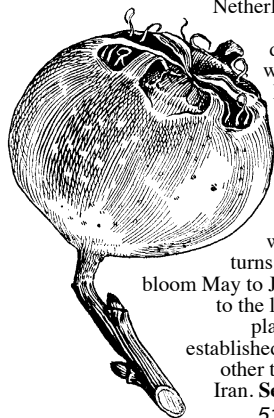
511C Sargent Crabapple on M111, \$29.25 ME Grown.

Waterville Crab 15x15' Small rounded tree with single white blossoms is loaded each fall with 1 1/2" deep maroon fruit suitable for wildlife, jelly and cider. Jack Kertesz discovered it a few years ago thriving out beyond the Waterville Post Office parking lot. For decades, Jack has been Maine's #1 fruit explorer. His enthusiasm is infectious and his dedication is inspirational. His notes on the Waterville crab read, "The young tree receives no care... sets fruit in long clusters (spur type)... most fruit is cosmetically perfect... strong flavor." Another lost gem discovered in the landscape. Probably a named variety, but for now we'll call it the Waterville Crab. Z4 or maybe Z3. **ME Grown.**

513C Waterville Crab on M111, \$29.25



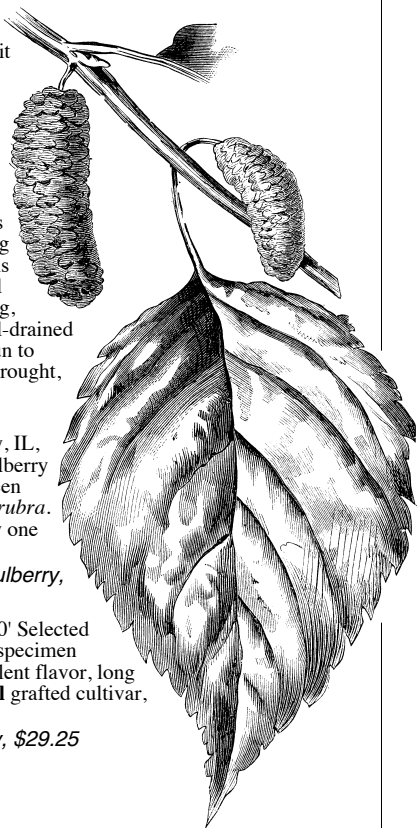
Mespilus germanica 'Breda Giant' Medlar 12-20' Introduced in the Netherlands. Cinnamon-flavored spicy pear-like fruit shaped like a large rose hip, just under 2" in diameter. Good eating when ripe, thin-skinned with applesauce-like texture. Fruit cultivated in Europe and England since the Middle Ages or earlier, and still considered a culinary delight.



One source recommends roasting in butter with citrus slices. Also makes good jelly, paste, chutney and "cheese." Fruit is hard when harvested after the first hard frost and must be bletted—allowed to ripen for several weeks in a cool place. Tastes best just before it turns mushy. 1-2" white flowers blushed with pink bloom May to June. Shiny green waxy leaves, a nice addition to the landscape. Begins bearing fruit 2-3 years after planting. One tree could bear 20 lbs of fruit once established. Plant in well-drained fertile soil, 9-10' from other trees. Full sun. Native to southeast Europe and Iran. **Self-fertile.** Z4/5. **ME Grown.** (2-5')

519A Breda Giant Medlar, \$29.25

Morus Mulberry Sweet flavorful purple-black 1" blackberry-like fruit is delicious fresh, in sauces, pies, fruit leather or smoothies. What fruit you don't pick, the birds will. Great tree for viewing a huge variety of birds up close. Plant it next to the chicken pen where it will rain chicken feed into the yard for several weeks, or put down a sheet to collect the fruit as it falls. Dense round-topped tree is one of the last to leaf out in the spring and one of the first to set fruit. Ripens in mid-July and continues for several weeks into late summer. Fast growing, even in poor soils. Prefers moist well-drained soils but otherwise adaptable. Full sun to partial shade; withstands pollution, drought, wind and salt. Z4/5. (2-5')



M. alba x M. rubra 'Illinois Everbearing' 30x20' White County, IL, 1947. One of the most renowned mulberry varieties, thought to be a cross between the Asian *M. alba* and the native *M. rubra*. **Self-fruitful** grafted cultivar, so only one plant required for fruit.

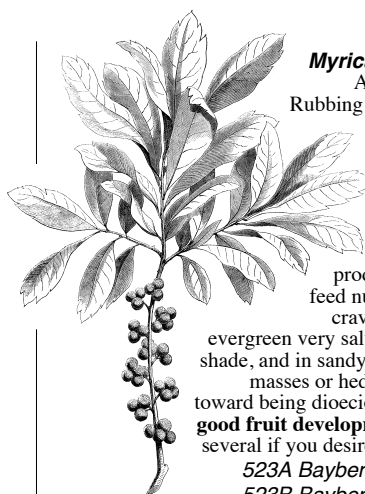
520A Illinois Everbearing Mulberry, \$29.25

M. r. 'Twisted Tree' 40-70' x 40-50' Selected by grower Akiva Silver from a wild specimen growing in upstate New York. Excellent flavor, long season, very cold hardy. **Self-fruitful** grafted cultivar, so only one plant required for fruit.

521A Twisted Tree Mulberry, \$29.25

SHALL WE KILL THE TOADS? My garden is full of toads, with a rather poetic license. The more manure and the better the cultivation, the more the toads thrive. This is probably with a sharp eye to business, for insects thrive best in rich land. Bugs are scarce on a gravel bank. But where the ground has been trenched, and the manure worked in unsparingly, and vegetation is rank, there insect-life abounds. And the toad makes his domicile under the cabbage or the squash-vine, and watches patiently for snails, worms, bugs, and millers. That smooth tongue that he darts out with such rapidity looks innocent enough, but it sticks like pitch to every living thing. His power of digestion is excellent. Harris fed one hundred black larvae, three quarters of an inch long, to a single toad without destroying his appetite. We can not afford to lose such an agency as this for the destruction of insects. He does for the ground what the birds do for the trees. Give the toads the freedom of the garden. C.

- from *American Agriculturist*, 1872



Myrica pensylvanica Bayberry 5-10' x same.

A common sight on Maine's coastal islands.

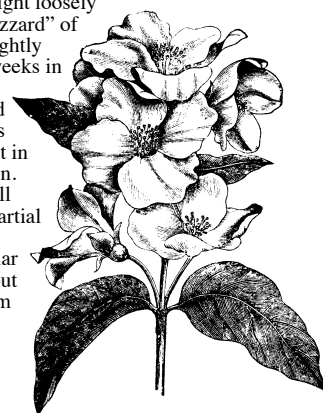
Rubbing the glossy deep green leaves between your fingers produces one of the most delicious smells in the world. Leaf and root teas are medicinal. Small greyish-blue waxy berries along the stems of female plants are highly aromatic, historically used for making candles. Non-showy flowers appear in late spring followed by fruit production during summer into late fall. Plants feed numerous wildlife species and are especially craved by swallows. Rounded deciduous semi-evergreen very salt-tolerant shrub thrives in full sun to partial shade, and in sandy poor soils to heavy clay soils. Excellent in masses or hedges, tends to sucker. Fixes nitrogen. Tends toward being dioecious: **male and female plants required for good fruit development.** We're offering unsexed plants; plant several if you desire fruit. Native to eastern U.S. Z2. (1-3')

523A Bayberry, \$15.00

523B Bayberry, bundle of 5, \$65.00

Philadelphus lewisii 'Blizzard' Mockorange 3-10' x 4-6' COPF intro, Alberta, Canada. Medium-sized coarse upright loosely arching ornamental blooming shrub. A "blizzard" of sweet citrusy fragrance from pure-white slightly cupped 4-petaled blossoms for up to four weeks in late spring, after the lilacs fade. A spray of golden yellow anthers attractive to bees and butterflies accents each flower. Species was named after Meriwether Lewis who noted it in 1806 during the Lewis and Clark Expedition. Prefers moist rich well-drained soils but will grow well in most conditions. Full sun to partial shade. Since blossoms form on prior year's growth, best to prune after flowering. Similar to old-fashioned European *P. coronarius*, but this one is native to North America. William Cullina calls it "our most ornamental Philadelphus species." Z3. (1-3')

524A Blizzard Mockorange, \$14.25



Make Space for Native Plants We love incorporating native plants back into the landscape. These plants are attractive, natural and beautifully suited to our growing conditions. Here are some you'll find in our catalog:

Amelanchier	Redosier Dogwood	Sugar Maple
Bayberry	Dutchman's Pipe	Mockorange
Bearberry	Echinacea	Mulberry
Birch	Elderberry	Nannyberry
Blackberry	American Elm	New Jersey Tea
Black Cohosh	Balsam Fir	Northern Wild Raisin
Highbush Blueberry	Foxglove	White Pine
Lowbush Blueberry	Wild Ginger	Beach Plum
Butterfly Weed	Goldenseal	Raspberry
Butternut	Grape	Redbud
Buttonbush	Groundnut	Spicebush
Eastern White Cedar	Hazelnut	Blue Spruce
American Chestnut	Honeylocust	Alpine Strawberry
Chokeberry	Blue Flag Iris	Walnut
American Cranberry	Kentucky Coffeetree	Winterberry
Highbush Cranberry	Linden	Witch Hazel
Diervilla	Lingonberry	Yarrow
Pagoda Dogwood	Lobelia	

Physocarpus opulifolius 'Everbright' Ninebark 8x8' Selected by John Meader, Fedco intro, 2017. Buds form in early May and open up to creamy white inflorescences (called corymbs) consisting of 30–60 tiny flowers. Flowers early when not a lot else is blooming. Alternate roundish-ovate bright green leaves have 3–5 lobes with a slightly serrated edge reminiscent of highbush cranberry. Beautiful in hedges and borders. This one was selected by longtime Fedco grower John Meader, from a patch of wild seedlings growing along a stone wall in Buckfield, ME. John wrote, "I like the plant that I have—now maybe 20 years old, because it always offers something interesting: the loose bark in winter, the long arching branches, the numerous white blossoms that attract many native pollinators, and then the 'fruit' in the 2" or so corymbs that make pale gold cushions tinged with red eventually turning brown and persisting. True, it's a bit of a sprawl...and not for a small garden but great in a back corner along a frequently used path." Easy to grow. This selection does not seem to have the leaf issues that can plague some *Physocarpus* cultivars. Drought tolerant. Grows well in neutral to acid soils. Species native Quebec to Virginia and inland. Z2. **ME Grown.** (1-3')

525A *Everbright Ninebark*, \$15.25

Prunus x kerrasis 'Carmine Jewel' Dwarf Sour Cherry About 6-7' x same. Midsummer. University of Saskatchewan intro, 1999. New crosses between sour and Mongolian cherries are causing a great deal of excitement in fruit-growing circles. Delicious dark purple fruits with purple flesh and small pits are approximately the size of small sour cherries and ripen in early July. Good for both fresh eating and processing. Some growers have reported getting 20–30 lbs per bush after 3–5 years. In our trials we saw fruit after only three years and have found Carmine to be the best-suited for our climate. Compact plant size keeps the fruit within reach and makes it far easier to net against birds than a standard cherry tree. Prefers full sun and decent soil with a pH of about 6.5. Pamper them with mineral amendments and compost. **Self-pollinating.** Rare. Z3. **ME Grown.** (1-3')

526A *Carmine Jewel Dwarf Sour Cherry*, \$21.00

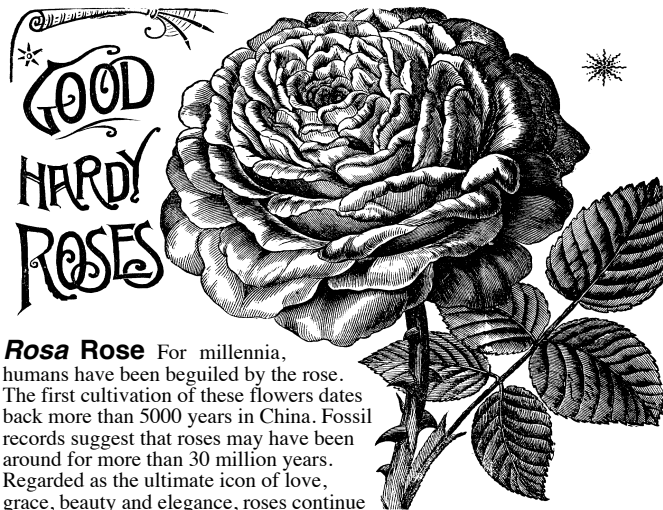
P. maritima Beach Plum 6' x 5-6' Rounded dense suckering shrub found along ocean beaches, New Brunswick to the Carolinas. In spring beautiful showy white blooms cover the dark branches. Purplish-red 1/2-1" fruit in late summer. Excellent jams, sauces and especially jelly. Although typically found growing naturally in poor sandy soils, the plants thrive in well-drained fertile soils with a pH of 6–6.5. Additional fertilization will further increase productivity. We suggest an annual 5-gallon bucket or two of compost per plant. Prune to maintain an open center for good light penetration. Plant about 5' apart. Although pollination requirements are uncertain, **we recommend planting at least two for good fruiting.** Salt tolerant! Native to eastern U.S. Z3. **ME Grown.** (1-3')

527A *Beach Plum*, \$14.50

527B *Beach Plum*, bundle of 5, \$65.00

P. tomentosa Nanking Cherry 6-10' x same. Broad dense highly ornamental fruiting shrub, becoming open and attractively irregular. One of the earliest flowering fruits every spring. Pink buds open to masses of fragrant white 3/4" flowers. Deeply veined light green foliage with very fine fuzz (tomentum) lining each vein underneath. Excellent hedge plant: an edible landscape crop that produces a lot of fruit that actually is edible! Variable 1/2" fruit in early summer ranges in flavor from mild to tart and in color from scarlet to clear red to pink and sometimes even white. Eat fresh or frozen. Excellent jelly and fruit leather. Said to make a good pie but pitting would require quite a bit of work. Covering plants with netting will deter birds from robbing your crop. Prefers full sun in well-drained soil. **Plant two or more for pollination.** Native to China and Japan. Z2. (1-3')

528A *Nanking Cherry*, \$14.50



Rosa Rose For millennia, humans have been beguiled by the rose. The first cultivation of these flowers dates back more than 5000 years in China. Fossil records suggest that roses may have been around for more than 30 million years. Regarded as the ultimate icon of love, grace, beauty and elegance, roses continue to be the subject of art and poetry across the world.

Roses have long been used in medicine, food, tea and perfumery. In the first century, Pliny the Elder recorded more than 30 uses of rose medicine. Leaves, petals, hips and roots all have medicinal properties to treat a range of disorders from wounds to stomach problems. Rose hips are rich in vitamin C and make a wonderful "rose apple" jam; rose-petal elixir calms the nerves and lifts the spirit.

Each year, we aim to offer a diverse selection of unusual and antique varieties. If your favorite is not on the list this year, we may offer it in the future. Unlike hybrid tea roses, these roses are all vigorous, cold hardy and on their own roots rather than grafted. Many of our rare varieties are propagated and grown without pesticides at Corn Hill Nursery in New Brunswick, Canada. The antique varieties grow slowly compared to newer hybrids and tend to be more difficult to propagate. You may notice that some of these roses have small root systems and little top growth. Don't be put off by their small size—it's just the nature of these old varieties. We can attest that they perform just as well as the others. Native to temperate regions throughout the world. (6-18", except where noted)

R. 'Henry Kelsey' 6-7' x same. (*R. kordesii* hybrid x seedling) Explorer Series, Ottawa, 1984. One of the best hardy climbing or, more accurately, long-caned varieties for colder climates. Vivid velvety deep red-pink semi-double 3" blooms with brilliant golden stamens will gussy up any post or trellis. Repeat bloomer with modest spicy fragrance. Shiny deep bluish-green foliage. Tie the long arching canes to a trellis or arbor, or let them reach low across the garden. Branches can be left to overwinter with minimal, if any, winter damage. Ours survived -30° with no problem. Appropriately named after Boy Kelsey, "discoverer" of the Canadian prairies in the late 1600s. Disease and mildew resistant. Z3.

529A *Henry Kelsey Rose*, \$16.50

R. alba 'Mme Plantier' 5-6' x same. *R. alba* hybrid. Unknown parentage, likely *Alba* x *Moschata*, 1835. Classic *alba* variety with clusters of white fragrant button-eye very double 2–3" blooms, sometimes containing more than 200 petals per flower! Blooms profusely midseason with no repeat. Medium-green smooth foliage on tall arching stems with few thorns. Benefits from support or trellising. In warmer climates has the potential to grow 20' into a supporting tree, though more of a shrub or pillar rose in the north. Grows vigorously upright then billows out with age. Disease resistant. Z4.

531A *Mme Plantier Rose*, \$16.50



Roses prefer full sun (at least 4–6 hrs per day) and a pH of 6.0–7.0. Space them 4–6' apart. They will do well in most well-drained soils with a good amount of organic matter. In locations with poor drainage, add gravel at the bottom of the planting hole, or build in drainage. Pick a site with good air flow, but avoid sites with cold northwest winds. Avoid competition with tree roots.

Plant roses as early as soil can be worked. Most roses' roots don't spread beyond the original hole, so dig a bushel-sized hole, as deep as 2' or more. We recommend lots of rotten hay in the bottom of the planting hole. Mix soil with liberal quantities of well-rotted manure and compost. Add a coffee-can full of rock phosphate or bone meal.

Soak roots in water overnight or up to 3 days before planting. Prior to planting, prune roses back to 3 canes, 2–5" tall. Plant them 1" below the level they were in the nursery. Add water as you fill in the hole to puddle it in. Mound soil around branches to prevent them from drying out, and to encourage buds to sprout. As the buds open, pull back the soil to the correct level.

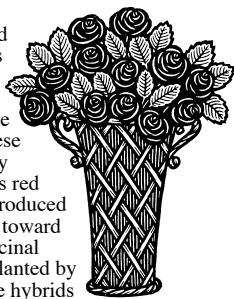
Shrub roses and climbers will require little pruning in later years. Any pruning should wait until after the forsythia bloom. Remove dead or broken branches, and periodically cut out the oldest wood. Keep roses well mulched to retain moisture and reduce weeds. Add 2 shovelfuls of composted manure to each crown late in the fall.

Old-fashioned Roses

Roses grown in Europe before 1800 are referred to as "Old World" roses, including the cultivars of *Rosa gallica* and *R. alba*. Their pink colors ranged from the deepest dark purple of 'Cardinal de Richelieu' to a faint pink blush like that of 'Chloris.' There were no reds among these antique roses and, though rich in fragrance, they bloomed only once per season. In the late 1700s red roses with repeat blooming tendencies were introduced from China, shifting the focus of rose breeding toward those traits. Demand for the aromatic and medicinal qualities of the Old World roses declined, supplanted by flowers that lasted long through the season. The hybrids created since the 1820s are called "modern" roses and are much more commonly seen in gardens today.

R. gallica is considered the oldest rose and still grows wild in some places in the Caucasus, the mountainous region between the Black and Caspian seas, where it originated. Its exact origin is unknown but it can be traced back fourteen centuries when it was considered a symbol of love by the Persians. The aromatic petals hold their scent better than any other rose and have long been considered medicinal. This species contains hundreds of different cultivars, some very similar and others unique. Most have similar compact shrub habits and are generally very hardy. Most modern-day roses are presumed to be descendants of the *gallicas*.

The *albas* are almost as old as the *gallicas* and are also believed to have traveled west from the Caucasus with the Greeks and Romans. Many of the *alba* cultivars were bred in the 1800s in Europe. Though they flower only once, they should not be overlooked, as their beauty and fragrance are unparalleled by any modern rose. They are considered "tree roses" with tall canes that can be trained to fences, pillars and stonewalls, like climbers. Unlike many roses, *albas* bloom on old wood—if pruned too heavily, they can take years to flower again. Like heirloom apples, they are actually more disease resistant than many of the modern hybrids.



Rosa rugosa 4-6' x same. Also called **Japanese Rose** or **Beach Rose**. Vigorous spreading shrub with dark green wrinkled (rugose) leaves. Flowers range from deep pink to white. Large edible red hips up to 1" are good for jams, teas and fresh eating right off the bush. Deb Soule of Avena Botanicals uses rugosa petals in her much-loved Rose Petal Elixir. Considered by herbalists of Western, Chinese and Ayurvedic traditions to be rejuvenating and cooling. Blooms form on both old and new wood, so pruning necessary only to control size. Prefers full sun and well-drained sandy soil but also flourishes in fertile garden beds. Tolerates salt, pollution and drought; practically care-free. Although native to China and Japan and assumed to have been brought here by sailors long ago, there is now reason to believe that the rugosas may have been here for many centuries and may even be native. Z2. (1-3')

535A Rosa Rugosa, bundle of 5, \$16.50

R. r. 'Scabrosa' 5-6' x same. Harkness intro, UK, 1950. Also called *R. superba*.

The epitome of the old-fashioned straight rugosa rose with all the excellent rugosa qualities to the max. One of the absolute best roses for the edible landscape. Sweetly scented very large single deep pink flowers and huge orange-red hips sometimes as big as cherry tomatoes. Showy yellow

stamens. Recurrent bloomer. It's the perfect rugosa. No frills, no bells, no whistles. Just beautiful flowers and large hips. Large dense rounded shrub with glossy green leaves. Good fall foliage color. Extremely hardy. No disease issues ever. Z3.

536A Scabrosa Rugosa Rose, \$16.50

R. 'Therese Bugnet' 6x4' [(*R. acicularis* x *R. kamtchatica*) x (*R. amblyotis* x (*R. rugosa plena* x Betty Bland))]. George Bugnet intro, Alberta, Canada, 1950. Vigorous upright fountain-shaped rugosa hybrid. Extremely fragrant large 3-4" ruffled lilac-pink double flowers have an informal "old rose" look. Blooms prolifically in late spring and fall and repeats throughout the summer. The first flush is so full of blossoms that the foliage is obscured. For maximum flowers, train canes laterally on a trellis or fence. Practically thornless near the blossoms, making it easy to pick. Long narrow grey-green foliage. Canes turn red in winter. Particularly beautiful in the snow. Disease resistant. One of the hardest of the rugosa types. Fast growing. Z3.

537A Therese Bugnet Rose, \$16.50

R. carolina Carolina Rose 3-6' x 10-12' Upright suckering native, also called **Pasture Rose**, with single fragrant medium-pink 2" blossoms. Five-petalled flowers bloom mostly in singles but sometimes in clusters midseason. Slightly glossy foliage. Bright red roundish hips late summer into early fall.

Relatively thornless shoots and completely thornless lateral shoots. Every year we like to offer a native species rose. The bees seem to particularly love these. Disease resistant. Native to eastern North America. Z2.

532A Carolina Rose, \$16.50

R. gallica 'Officinalis'

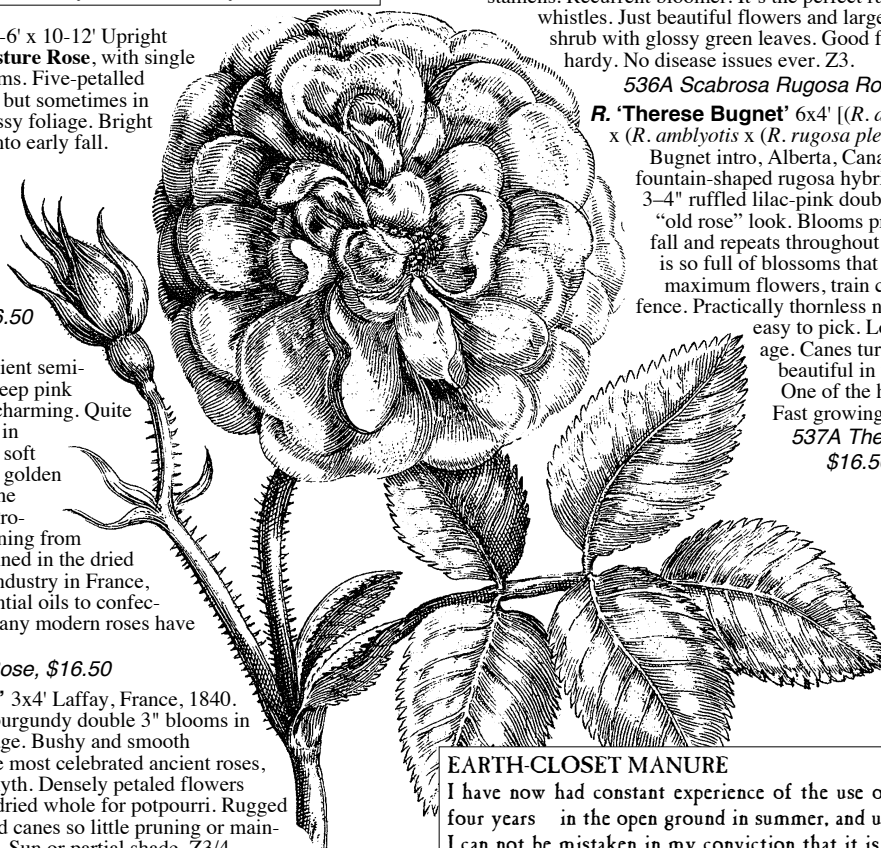
Apothecary's Rose 4x4' Ancient semi-double deeply fragrant intense deep pink rose is just as medicinal as it is charming. Quite possibly the first rose cultivated in European gardens. Four rows of soft silky petals surround a crown of golden stamens. History dates back to the 11th c. when it was brought to Provins, France, by Crusaders returning from Syria. The strong fragrance retained in the dried petals led to an entire perfume industry in France, producing everything from essential oils to confections with "Rose of Provins." Many modern roses have been derived from this rose. Z4.

533A Apothecary's Rose, \$16.50

R. g. 'Cardinal de Richelieu' 3x4' Laffay, France, 1840.

Exquisite fragrant deep purple-burgundy double 3" blooms in midsummer. Smooth green foliage. Bushy and smooth stemmed. *Gallicas* are one of the most celebrated ancient roses, steeped in history, legend and myth. Densely petaled flowers hold their fragrance and can be dried whole for potpourri. Rugged and easy to grow. Flowers on old canes so little pruning or maintenance required. Soil adaptable. Sun or partial shade. Z3/4.

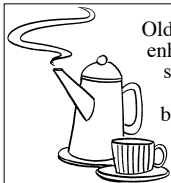
534A Cardinal de Richelieu Rose, \$16.50



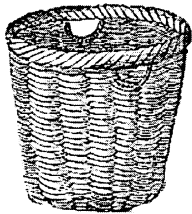
EARTH-CLOSET MANURE

I have now had constant experience of the use of earth-closet manure for four years in the open ground in summer, and under glass in winter and I can not be mistaken in my conviction that it is a very valuable fertilizer. Its effect has been especially marked in the growth of roses and celery, both of which require a very rich soil, and both of which I have grown to greater perfection with earth-closet manure than any other. My experience has not been singular, but accords with that of many others whose results have come to my knowledge. Even supposing that the effect produced by these manures is not enough to repay the high cost of labor here and in England, we must not lose sight of the fact that the wonderful agriculture of China and Japan is based almost entirely upon the strictest economy and the most skillful use of human manure.

- from *Agricultural American*, article by George Waring, Jr., 1872



Old World gardeners claimed the fragrance of roses was enhanced by spreading the remnants of the teapot in the soil around the rosebushes. People sometimes applied lard drippings like fertilizer and other times placed a block of lard in the hole during planting. Gardeners of today often perk up their roses with Epsom salts.



Finished Basket

The culture and preparation of willows for market is sufficiently easy and profitable to make it worthy of being carried on more systematically than it is at present...

Willows are readily grown from cuttings on rich soil or on the banks of ponds and streams. A new plantation should be kept cut closely every year, so as to force out a good annual growth of shoots from the stumps, and the osiers may be gathered after the second or third year. But osiers may also be grown by cutting off the mature trees a few feet above the ground, and thus causing them to throw out numerous small branches. This is called "pollarding," and a willow thus cut off is a pollard or pollarded willow. In one year these shoots will grow several feet in length, and in the fall are cut off close to the tree, and laid away in heaps until the following spring, which at the commencement of the growing season they are placed in water until the buds swell. They are then trimmed and peeled. A boy or

Willows and Baskets Many willows (or osiers) make suitable material for fashioning baskets, especially when coppiced (entire plant cut to the ground in late winter) or pollarded (see below), methods that encourage lots of new flexible shoots each year. We're offering Blue Leaf Arctic Willow, ideal for fine basketry, but we've also made coarse baskets from other willows and bendy plants like grape and redosier dogwood.

The following article on growing osiers and weaving baskets appeared in the journal *American Agriculturist* in September 1872:

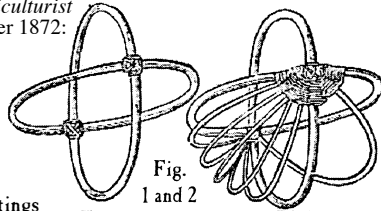


Fig. 1 and 2
Foundation of a Round Basket

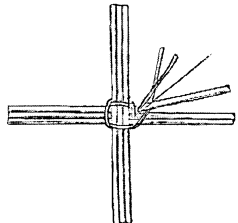
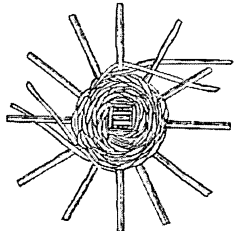
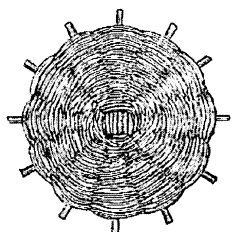


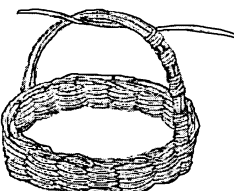
Fig. 3 Beginning of Bottom



Weaving Bottom



Bottom Finished



Making Handle

girl removes with a sharp knife all the twigs, and hands them over to the peeler... Some osiers for coarse work are used without being peeled.

The growth of osiers may be made a means of adding to the resources of many farms, as willows will grow wherever their roots can get plenty of moisture. The making of baskets might also furnish employment for stormy days or long winter evenings, when otherwise there might be no profitable employment. Weaving osiers into various kinds of baskets is an art which may be easily learned, and once the rougher methods for coarse work, such as barn baskets, or market baskets, or hampers for packing bottles, which in themselves are considerable branches for trade, are well mastered, and facility in them is acquired, the finer sorts of work will come quite handy, and can be easily performed.

The commencement of all basket-making consists in laying the foundation. [Figs. 1 and 2] show the frame for a round-bottomed basket with handle. [Fig. 3] shows the frame for a flat or square-bottomed basket, which consists of three coarse osiers, laid crosswise of three other similar ones.

The weaving commences by passing finer osiers round the coarse ones where they cross each other, and when they are secured together they are spread out until they radiate like the spokes of a wheel. The finer osiers are then woven in amongst them, and the filling goes on until the bottom is finished, when the frame pieces are bent upwards, or fresh osiers are inserted, to form a foundation for the sides.

When the sides are carried up sufficiently, the frame-pieces are bent down and woven in amongst the filling, so as to hold them securely in place for a short piece, when they are cut off, and the top of the basket is finished off.

The last work of all is to sharpen off the last remaining osiers and thrust their ends through the frame in such a manner that they can not work out. The basket is trimmed inside, all ends sticking out are smoothly cut off, and the basket is done.

Salix Willow The genus *Salix* comprises hundreds of different species of plants most commonly called willows but sometimes called **Osier** or **Sallow**. Willows grow all over the world. Some are towering specimens, like the weeping willow. Others are short scrubby bushes, like some willows growing in the arctic: only two feet tall but 100 years old! Uses include ornamental landscaping, shade, basket-making, erosion control, timber, fuel and medicine. All parts, especially the bark, contain salicin, used for relief of pain and fever for hundreds, or even thousands, of years. Aspirin is a synthetic analog of salicin. Willows feed local wildlife, insects and birds. We plant them near the orchard to provide early season forage for our native pollinators. All prefer sun and loamy wet soils, but are adaptable, easily transplanted and fast growing. (1-3')

Weeping willow can be found on p. 32.

S. alba 'Britzensis' Coral Bark Willow 15-30' x 12-15' Späeth intro, Britz, Germany, 1878. Also called *S. a. var. vitellina 'Britzensis'*. Fast-growing shrubby tree with highly ornamental "coral" red bark. Especially beautiful in the snowy winter landscape. Recommended for filling the winter flower vase. No water: just set the dormant branches in the vase and enjoy. The deep red stems will dry to a rusty red. The color is most striking on new growth so give it an annual spring pruning or even cut it right to the ground. Every spring you'll get new 5-10' red stems. Typically narrow *Salix* leaves. Originally raised from seed by the famous nurseryman Ludwig Späeth whose lilac is one of the all-time favorites (see p. 50). Likes water, adaptable to a wide range of soils and conditions. Full sun to light shade. Z2. ME Grown.

543A Coral Bark Willow,
\$13.00

S. caprea Goat Willow

20x12' A fancy European version of our common native pussy willow, *S. discolor*. One of the first signs of spring. On a dreary cold day during mud season, the light of an over-cast sky makes the newly emerging catkins look like diamonds in the grey landscape. Cut early spring branches and put in a vase, no water needed. Recommended as a companion plant in the orchard, an excellent source of early spring pollen for winter-weary bees. Keep it pruned low in order to better reach—and enjoy!—the beautiful new stems in springtime. Prefers woodland edges and lowlands but adaptable. Native to the U.K. but long naturalized in much of Europe. Z3. ME Grown.

544A Goat Willow, \$13.00

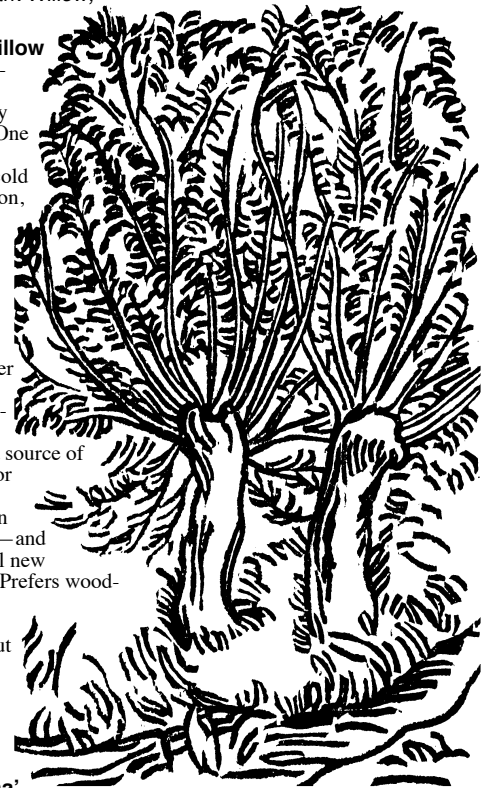
S. purpurea 'Nana'

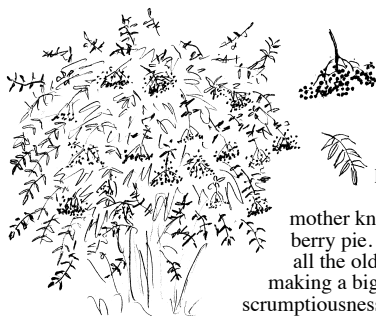
Blue Leaf Arctic Willow 3-5' x 3-6' Selection of Purple Osier willow. Medium-sized spreading shrub with small narrow blue foliage (actually greenish above and blue beneath) and delicate thin long red or green stems. The graceful thin stems sucker, layer and form a thick and highly attractive ornamental mass. Long cultivated and coppiced for a fine-textured basket-making material. Excellent bank or hedge plant, especially in wet areas but also quite suitable for a highly visible location. We've seen it used in a perennial bed; it looked great. If it gets too overgrown, cut it to the ground every couple of years and it'll come right back. Native Europe to North Africa to Japan. Z3.

546A Blue Leaf Arctic Willow, \$13.00

S. sachalinensis 'Sekka' Japanese Fantail Willow 10-15' x same or wider. Male clone, Japan, before 1700. Fantastic wide dense spreading disheveled shrub with highly ornamental branches that are flat and often curled near the branch tip like the neck of a violin. We cut the reddish-golden surreal stems in winter for arrangements: they look great in the vase for years. Yellow catkins in the spring make good pollinator forage. Glossy green summer foliage turns yellow in fall. Makes an impenetrable hedge or low windbreak. Trim it back any time of year. Highly adaptable, you can grow it anywhere. Native to Japan. Z4. ME Grown.

547A Sekka Japanese Fantail Willow, \$13.00





Sambucus Elderberry 6-12' x

same. This amazing plant has more attributes than we can list.

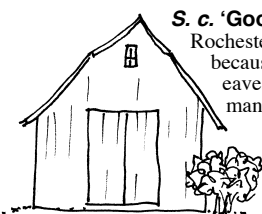
Dangling clusters of edible purple-black berries ripen in late summer on this broad vigorous multi-stemmed shrub. The fruit is highly nutritious and medicinal. A

century ago, everyone's grandmother knew how to make the perfect elderberry pie. Recipes for jam could be found in all the old farm cookbooks. Elderberries are making a big comeback as folks rediscover the scrumptiousness of elderberry jelly, cordial, elixir and wine. The large creamy-white flower clusters, or

cymes, that cover the shrub in early summer make delicious fritters. Dry them for a fragrant wintertime cold-and-flu remedy tea. For centuries, humans have used this plant's medicinal qualities to treat a wide range of ailments and to boost the immune system. Hippocrates is said to have called the elder tree his "medicine chest." Birds love the fruit, and the blossoms attract beneficial insects and pollinators. Elderberry trees appear in myths from days of yore, thought to possess magical and protective powers. Elderberries are low-maintenance and easy to grow. With a little attention, they will provide strong yields of fruit for several decades. **Considered self-fertile but** multiple varieties or even multiple species will improve fruit set. Z3. All are **ME Grown**. (1-3')

S. canadensis 'Adams No. 1' NY State Ag Experiment Station intro, 1926. Selected in 1915 from the wild by William Adams in Union Springs, NY, and sent to Geneva where it was introduced 11 years later. Large berries and fruit clusters make for easy and fast picking. If you're heading to a potluck and need to make a pie in a pinch, Adams is the shrub you want. Excellent for preserving and not bad fresh eating. Very large vigorous strong productive bush. Typically 7-8' tall.

551A Adams No. 1 Elderberry, \$17.00



S. c. 'Goodbarn' Chance seedling. Elwyn Meader intro, Rochester, NH. Professor Meader named this Goodbarn because it was the good elderberry growing under the eaves of his barn in New Hampshire. Another of the many fine plants that Elwyn's son John has brought to our attention over the years. Thanks, John! Hardy, vigorous with apparent self-fertility. It blooms heavily and produces large crops annually. Lower grower, maybe to 5'.

552A Goodbarn Elderberry, \$18.00

S. c. 'Mattawamkeag' Fedco intro, 2014. Selected and propagated by Sue Szwed and Mitch Lansky of Wytopitlock, ME. Sourced from a wide swath of plants growing between Wytopitlock and Bancroft in Aroostook County near the Mattawamkeag River. Sue and Mitch took cuttings from plants that are robust with consistently high fruit yields.

554A Mattawamkeag Elderberry, \$18.00

S. c. 'Wyldeewood' University of MO/MO State U, by P.L. Byers and A.L. Thomas. Selected from wild bushes in 1995, introduced in 2010. A vigorous consistently high-yielding cultivar, popular in the Midwest. Some trials are showing it produces as much as Adams, if not more, and ripens a little bit later. *Limited supply; order early.*

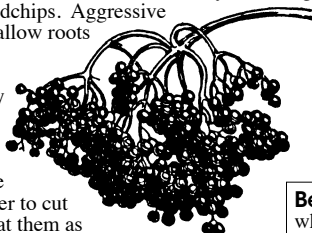
558A Wyldeewood Elderberry, \$18.00

Why should we cross an ocean to see places made famous by beauties derived from generous use of American plants which grow wild and unconsidered here at home? The sensible man who should plant his spacious grounds with these charming native shrubs in a really liberal way would not only have in time the finest grounds to show, but be a public benefactor and educator.

- F.L Temple, *Agriculture of Maine*, 1889

Elderberries are best grown in rich soil with a pH of 5.5-7.5 but are adaptable to a variety of soil types. They love compost! Add compost to the hole at the time of planting and every spring after that. They prefer moist soil but will tolerate poor drainage and temporary flooding. On the St. Croix River, we've harvested elderberries from the canoe! Plant in full sun. Susceptible to borers when weeds are allowed to crowd the base. Control weeds by mulching with a thick layer of hay, leaves or woodchips. Aggressive weeding around elders will disturb their shallow roots and risk injury to the plant.

Pruning for *S. canadensis*: in spring, while plant is still dormant, prune away any weak, broken or dead canes. New canes will emerge. Fruit is produced on both new and old wood but best sets are on one- and two-year canes. Periodically cut out the oldest wood. Alternately, some people prefer to cut elders back to the ground each year and treat them as perennials. The latter plants will produce fewer but larger fruit clusters. (*S. nigra*, which we sometimes carry, fruits on second-year wood.)



S. c. 'York' (Ezyoff x Adams No. 2) NY Ag Exp Station, 1964. An old reliable, considered by some to be the largest-fruited and heaviest-bearing cultivar. In most of our Maine trials, this shrub is more compact than Adams, topping out at 4-5', but we've seen a 10' specimen growing on a compost pile. Persistent and will bear well for many years alongside other varieties. Heavy clusters of mildly tart large berries that ripen after Adams are easy to pick and excellent for jam, jelly, wine and pie. Bright green foliage on a rounded shrub.

559A York Elderberry, \$17.00

S. c. Elderberry Seedlings Each one is grown from cold-hardy seed and will be a totally unique plant. Some of our best plants grew from batches of such seedlings. Jen has one that outgrew all of her other elders and provided huge amounts of berries in its second year.

560A Elderberry Seedling, \$17.00

560B Elderberry Seedlings, bundle of 5, \$75.00



Special Plants for Challenging Locations

Drought Tolerant:

Amelanchier
Bayberry
Bearberry
Lowbush Blueberry
Butterfly Bush
Catmint
Cornelian Cherry
Chestnut
Diervilla
Elm
Grape
Hawthorn
Heather
Honeylocust
Kentucky Coffeetree
Lavender
Lilac
Lingonberry
Peashrub
Beach Plum
Rosa Rugosa
Spruce

Wet Tolerant:

Amelanchier
Birch
Black Cohosh
Highbush Blueberry
Buttonbush
Eastern White Cedar
Chokeberry
American Cranberry
Highbush Cranberry
Dawn Redwood
Redosier
Elderberry
Elm
Ferns
Blue Flag Iris
Lobelia
Marshmallow
Spicebush
Turtlehead
Willows
Winterberry
Witch Hazel

Shade:

Eastern White Cedar
Black Cohosh
Clematis
Comfrey
Pagoda Dogwood
Dutchman's Pipe
Ferns
Balsam Fir
Wild Ginger
Goldenseal
Groundnut
Hazelnut
Hops
Hosta
Lady's Mantle
Linden
Sugar Maple
White Pine
Pulmonaria
Spicebush
Blue Leaf Arctic Willow
Wintergreen
Witch Hazel

ME Grown = grown in Maine at one of our small local nurseries



Before cooking, remove elderberries from their stems. This can be done while the berries are fresh or frozen. We pick and pack entire panicles of berries into plastic bags and put the bags in the freezer. Once frozen, remove and whack the bag with a stick. The berries will easily fall from the stems. Snip a hole in the corner of the bag and the berries will roll out. Freezing will not damage the fruit.

Syringa Lilacs have been a fixture in the New England landscape for generations. More often than not, when we find old apples trees, the ancient lilacs are not far away. The large rambling suckering shrubs continue to flourish each spring long after the buildings have disappeared and all that remains of home-steads are the remnants of stone foundations. Why were the lilacs always planted just outside the kitchen door? On cold winter mornings, someone would clean out the wood stove and sprinkle ashes on the icy path to the back-house. Or maybe the path to the wood shed or the clothesline. Over the years, the earth outside the kitchen door became saturated with lime. Lilacs love alkaline soil.

In the landscape, lilacs are excellent alone or in hedges. Deep green glossy heart-shaped foliage looks good from spring through fall. Intensely fragrant blooms in May over a period of several weeks. Hundreds of varieties have been developed over the ages. Flowers range from singles to doubles, pure white to the deepest purple, not to mention pinks and reds and lavenders of every persuasion. Ornamental, edible (frittered flowers à la elderberry), medicinal, and a great Mother's Day gift. (1-3')

S. patula 'Miss Kim'

8x8' NH Ag Exp Stn, 1954. Heavily scented extremely prolific small single ice-blue lavender blooms appear after the *vulgaris* types have gone by. Red-purple buds.

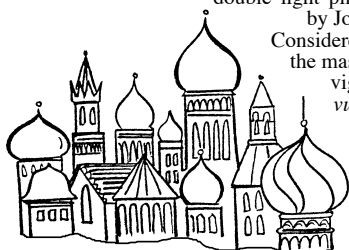
Descended from one of the twelve seeds that plant-breeder Elwyn Meader collected on a hike in 1947 while stationed in Korea as an Army horticulturist. Very compact rounded form. A number of years ago, a customer sent us a photo of her "Fedco" Miss Kim and wrote, "If you look closely at the photo you can see a few of the many, many butterflies that would cover these lilacs, almost like the blooms themselves." Z3.

567A Miss Kim Lilac, \$15.00

S. vulgaris 'Beauty of Moscow' 12x8' N237 ('Belle de Nancy' x 'IV Michurin') Leonid Kolesnikov intro, Russia, 1974. Also known as 'Krasavitzka Mosky'. Dazzling pearly lavender-pink buds open to delicate double light pink-shaded white flowers. Described by John Fiala as "excellent in every way."

Considered one of the best creations by one of the master hybridizers of the 20th c. Prolific vigorous upright plant. Later than other *vulgaris* types. Z3.

568A Beauty of Moscow Lilac, \$15.00



S. v. Common Purple 12-15' x same. A mass of medium-light purple blooms every year. A magnificent New England sight for nearly 400 years. When a nursery friend looked out John's living room window and thought he had some fancy new cultivar, he chuckled, "Nope, just the good old common purple." Never disappoints. Suckers freely, the best lilac for a spreading hedge. Z2.

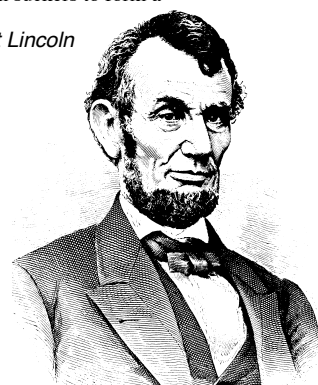
569A Common Purple Lilac, \$15.00

S. v. 'Ludwig Späeth' 10-12' x same. ('Andenken an Ludwig Späeth') Späeth Nursery, Berlin, 1883. Ludwig Späeth's deep rich purple flowers are always a knock-out. Dark but never so dark that the color becomes flat and the highlights lost. This is a magnificent deep purple. Although we hesitate to use the word red, there is enough red in the purple to give it a regal look. Single flowers on large upright spikes. Upright growth habit. Will sucker over time. One of the very best of the very best. Z3.

570A Ludwig Späeth Lilac, \$15.00

S. v. 'President Lincoln' 10' x same. ('Alba Virginalis' x open-pollinated) John Dunbar intro, Rochester, NY, 1916. Covered with smallish clusters of exceptionally fragrant single light lavender-blue blooms. An absolutely outstanding lilac. Blooms early and quits late. Blue lilacs are rare and Lincoln is blue. A few newer blue cultivars have been introduced but President Lincoln remains at the top of the heap. Given a chance it will spread from suckers to form a massive shrub. Z3.

571A President Lincoln Lilac, \$15.00



QUESTIONS FOR FARMERS

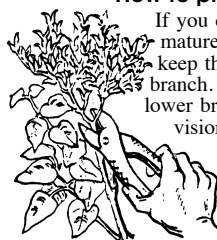
Have you got your wood cut and piled up for next summer? examined your bees? got your buckets ready for making sugar and spouts for tapping trees? drawn your logs to the sawmill? racked off your cider and bunged your casks tight? put your hams in the smoke house? threshed out all your grain? assorted your potatoes in the cellar? felled your trees for rails? collected your cions for grafting in the spring? repaired your carts, ploughs and harrows? settled with all your mechanics? dressed out your flax? taken a load of wood to the poor? If you have done all these things, you have done well.

- from *The Genesee Farmer*, 1831



Lilacs are adaptable, easy to grow, nearly indestructible and practically maintenance-free. Plant them in a well-drained location in moderately rich soil. Sandy gravelly loam is perfect. They prefer at least 6 hours of sunlight each day. We suggest planting them with a shovelful of wood ash or lime, then add another shovelful of either every 3 years. A yearly mulch of manure or compost will encourage spectacular annual blooming. Pink, lavender and blue lilacs color up best in soil with a neutral pH.

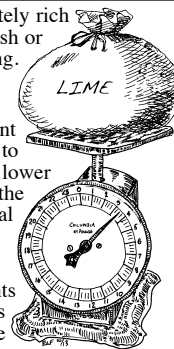
How to prune lilacs



If you choose to prune your lilacs, do it right after flowering. Late-season pruning removes next year's buds. As the plant matures, prune off a quarter of the new suckers and the oldest growth (a few main stems each year). Some growers prefer to keep the plant low and bushy. Do so by "topping" it off every year: prune any upright branch back to a junction with a lower branch. Others prefer a tall tree-like form. Our friends Philippe and Danielle have let theirs soar to 8' or more, removing the lower branches and creating a magical walkway in the process. Lilacs are more than willing to cater to your own personal vision. Have fun! No need to cut off spent flowers except for appearance.

Why isn't my lilac blooming?

Too shady: lilacs need sun to form blossoms. Over-pruned: pruned too late, removed buds. Also, some plants respond to excessive pruning by putting their energy into vegetative growth instead of flowering. Too wet: lilacs like well-drained soil. Over-fertilized: lilacs will bloom well without assistance. Too much fertility can lead more vegetative growth and inhibit bud formation.



***Viburnum cassinoides* Northern Wild Raisin** 5-6' x same. Also called **Appalachian Tea**, **Raisinberry** or **Witherod**. Rounded arching dense suckering native shrub. Creamy white flowers with yellow stamens on 2-5" flat-topped cymes bloom from spring to early summer. Highly desired for its multicolored edible fruit, which turns from green to pink to red to blue before finally turning black in September. One fruiting cluster may feature several colors at the same time. Best eaten when nearly dried out on the branch, if you can get to it before the birds! Foliage, once used in tea, emerges bronze or purple tinted, turning dark green when mature and then orange-red, dark crimson and purple in fall. *Withe* is from the old English meaning a tough, flexible twig used to bind things together. Witherod is pronounced *withe-rod*, not *wither-rod*. Good as a specimen but **plant more than one for fruit**. Sun to partial shade. Very rugged: adapts to dry or wet sites. Native to eastern North America. Z3. (1-3')

577A Northern Wild Raisin, \$14.50

***V. lentago* Nannyberry** 15-20' x 10-12' Also called **Sheepberry** or **Sweet Viburnum**. Large open vase-shaped suckering shrub with edible oval berries that turn from green to yellow to red to blue-black raisins that persist in winter and are popular with the birds. Large flat-topped clusters of fragrant creamy white flowers are a common sight in spring in the Maine landscape. Shiny foliage, purplish red in fall. Medicinal bark and leaves. Native Americans ate the dried fruit as trail food for hunting trips but did not gather it in large quantities. Recommended for naturalizing, bird and wildlife habitat, screens and borders. Prefers moist well-drained average soils but adaptable to poor, compacted or dry soils. Sun or shade. **Self-fertile**, but plant two or more for better pollination and fruit production. Native to eastern U.S. and Canada. Z2. (1-3')

578A Nannyberry, \$14.50

***V. plicatum* var. *tomentosum* 'Mariesii' Doublefile Viburnum** 8-10' x same. Charles Maries intro, Veitch Nursery, Chelsea, England, 1877. Rounded shrub with distinctly horizontal stepped branching habit frosted with spectacular parallel rows of snowy white flowers that float above the foliage in spring. Lacecap flowers are absolutely magnificent in bloom though not fragrant. Michael Dirr calls it "possibly the most elegant of flowering shrubs." Serrated deeply veined dark green foliage turns red-purple in fall. Impressive large red fruit clusters turn black toward summer's end and are relished by birds. Prefers moist well-drained loamy slightly acidic mulched soil, sun or light shade. **Plant multiples for best fruit set**. Native to eastern Asia. Z5. **ME Grown**. (1-3')

579A Doublefile Viburnum, \$14.50

***V. trilobum* Highbush Cranberry** 8-12' x same. Also known as **Crampbark**. Medicinal multi-stemmed native shrub. Clusters of 4" flat white flowers in May attract beneficial insects. Quite lovely in bloom. Pendulous bunches of red berries ripen mid-October, popular with dozens of bird species. Fruit is extremely rich in antioxidants and vitamins A and C. Although considered a wildlife plant, berries can be used for juice, jam, fruit leather and syrups—when boiling them down, don't let the somewhat unpleasant odor deter you. Bark is one of the most effective anti-spasmodic native medicinals. Harvest bark in April or early May before leaves emerge by running a sharp knife down the long younger stems. Make tea or tincture to relieve cramping and muscle tension of various sorts. Good for screens and hedges. Tolerates dry soils that are high in organic matter, but prefers rich moist well-drained soils, sun or shade. Soil pH 6-7. Susceptible to viburnum leaf beetle; check with your local extension office or nursery to determine if this could be a problem. Not a bog cranberry. Native to northeast U.S. and Canada. **Self-pollinating**. Z2. Both are **ME Grown**. (1-3')

V. t. 'Phillips' Selected by Elwyn Meader from plants found in W. Acton, ME. If you're hoping to eat the fruit, this one is superior in flavor. Berries do not emit offensive odor when heated. Jells without additional pectin.

580A Phillips Highbush Cranberry, \$15.50

V. t. Seedlings Add to the biological diversity of your garden. No two seedlings are exactly alike. Not only is it fun and exciting to see what you get, it allows nature the opportunity to develop resistance and durability to insects and disease.

581A Highbush Cranberry Seedling, \$14.50

581B Highbush Cranberry Seedlings, bundle of 5, \$67.50

***Weigela florida* 'Minuet' Weigela** 2' x 2-3' ('Foliis Purpureis' x 'Dropmore Pink') Ottawa Research Stn, Ontario. Dwarf compact somewhat upright spreading form. So gorgeous out of bloom it's hard to believe it can get better—but it does. Each long slender leaf has a reddish-purple tip fading into deep green with a yellow midrib. The older leaves are lighter green edged in purple. The fragrant ruby-red flowers are yellow throated and cover the plant in early summer and again later in the season. The effect in flower is a sea of rose-pink. Hummingbirds adore this plant. Laura Childs describes Minuet as "petite but powerful." She planted hers by a moss-covered boulder and the color contrast is amazing! Excellent in masses or as a specimen. Prefers full sun and well-drained soil but is quite adaptable. Pollution tolerant. Z4. (1-3')

585A Minuet Weigela, \$14.25

Groundcovers

Arctostaphylos uva-ursi

Bearberry Also called **Kinnikinnick**, **Hog Cranberry**, **Mealberry**, **Sandberry**, **Mountain Box** or **Bear's Grape**. Delicate low-growing beautiful

glossy evergreen spreading groundcover. Beautiful in rock gardens. One plant can spread to 15'. Small pinkish-white flowers in spring. Leaves are diuretic, astringent and antibacterial. Used before modern antibiotics in treating urinary infections. Tea may also have value as a general tonic. Small bright red drupe-type berries color up in late summer and persist into winter. Too insipid for fresh eating, but traditionally eaten by native peoples, often fried with fish.

Prefers poor sandy infertile acid soils, tolerates salt. Can be sensitive to root disturbance, thus finicky in transplanting and may be slow to establish.

Set plants 1-2' apart. No need ever to prune or fertilize.

Sun or partial shade. Native to North America and Eurasia.

Self-pollinating. Z2. **ME Grown**. (potted transplants)

L596A Bearberry, \$14.25

***Calluna vulgaris* Heather** Magical, mythical and medicinal evergreen groundcover features a spread of flowers in late summer ranging through the colors of the rainbow. Colorful foliage in autumn. Each year we vary our selection but always offer the hardiest varieties proven to flourish in northern climates. Revered in the British Isles, important medicinally in teas, honey, liniments and ointments. First fermented a few thousand years ago, used in gruit, ale, and might be the original ingredient for the first whiskey. Branches used in thatching, bedding, basketry, rope-making,

broom-making and even insulation. Flowers attract bees, butterflies and moths, especially when planted in masses. Recommended for rock gardens and edges of paths—or for opening the portals to the fairy world! Requires acidic soil and full sun to partial shade. Plant about 18" apart each way and let it spread. Mix peat into the soil to lower the pH if necessary—see

planting instructions for cranberries and blueberries. Does not like high fertility or wet spots. Shear every April for best bloom. Native to the dry forests, heaths and bare grounds of Britain and Ireland. More recently naturalized in North America. Z4. (4" pots)

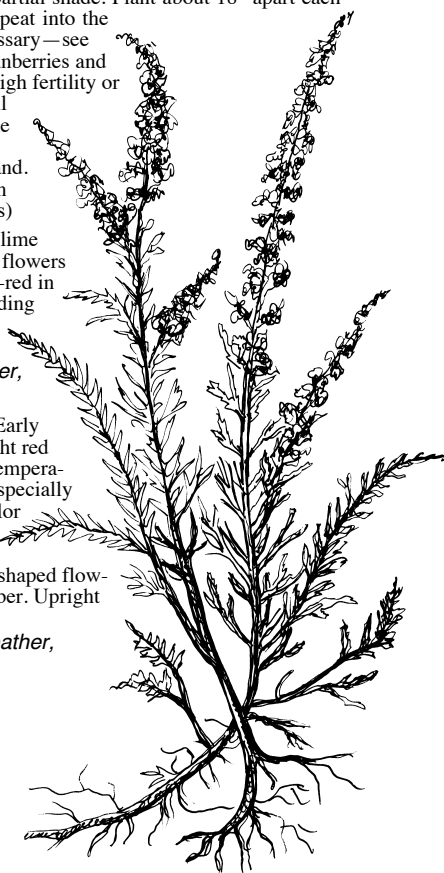
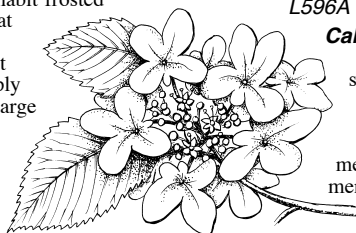
C. v. 'Aurea' 8x16" Gold-lime foliage with pinkish-purple flowers August-September. Copper-red in winter. Vigorous low spreading plants brighten up the garden.

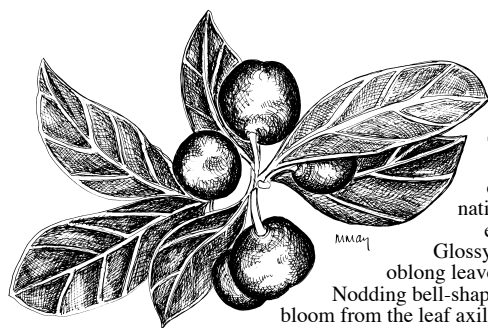
L597A Aurea Heather, \$11.00

C. v. 'Red Fred' 14x18" Early spring growth emerges bright red and deepens with warmer temperatures making this cultivar especially vibrant at a time of little color in the garden. Foliage greens up in summer and sets flower buds. Pink bell-shaped flowers emerge August-September. Upright mounding habit.

L598A Red Fred Heather, \$11.00

ME Grown = grown in Maine at one of our small local nurseries





Gaultheria procumbens **Wintergreen**

Also called **Eastern Teaberry**. Herbaceous aromatic rhizomatous evergreen groundcover native to the woodlands of eastern North America.

Glossy dark green elliptic-to-oblong leaves form on erect stems. Nodding bell-shaped waxy white flowers bloom from the leaf axils in June. Flowers give way to vivid red berries. Leaves will take on beautiful

burgundy shades in the fall. Excellent winter food source for free-range chickens, partridge, turkeys, and some two- and four-legged mammals. Fragrant leaves contain methyl salicylate, a potent external anti-inflammatory, and can be used to make a poultice or massage oil to ease arthritic pain and sore muscles. Designated Maine's State Herb in 1999. Plant 16" apart in dappled shade in moist but not boggy woodland soil. Grows 6–10" tall with a 1–3' spread. **Self-pollinating**. Z3. (nursery-propagated 3.5" plugs)

L599A Wintergreen, \$8.00

L599B Wintergreen, bundle of 3, \$20.00

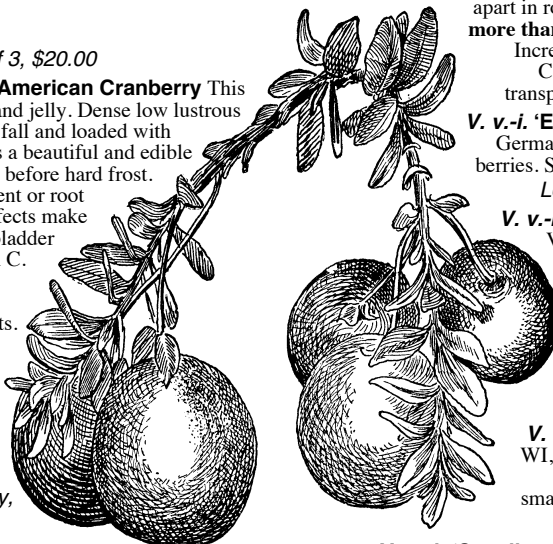
Vaccinium macrocarpon 'Stevens' American Cranberry This is the cranberry of holiday sauces, bread and jelly. Dense low lustrous evergreen groundcover, reddish purple in fall and loaded with large red berries. Once established, makes a beautiful and edible "lawn." Handpick or rake like blueberries before hard frost.

Use fresh, freeze or store in a cool basement or root cellar for months. Bitter and alkalizing effects make it one of the most common remedies for bladder infections. An excellent source of vitamin C.

Annually flooded for frost protection and harvesting convenience in commercial operations, but not necessary in home plots. Adaptable to everything from bogs to dry rocky outcroppings. **Self-pollinating**.

Native to northeastern U.S. and Canada. Comes in a bushy 6" clump which can be carefully divided or planted as a whole for division in future years. Z2. **ME Grown**. (1-gallon pots)

600A Stevens American Cranberry, \$20.00



V. vitis-idaea Lingonberry Also called **Foxberry**, **Cowberry**, **Mountain Cranberry**. Vigorous shallow-rooted spreading groundcover is related to blueberries and cranberries. Bright red glossy nutritious fruits are slightly smaller than lowbush blueberries. Tart until dead ripe, then has excellent flavor, richer and less astringent than cranberries. Can be eaten fresh but primarily used in sauces, jams, syrups, fruit leathers, juices and wines. Stores up to 2 months in the fridge. Small shiny dark green foliage is quite lovely. Adorable tiny bell-shaped white flowers in spring attract a plethora of pollinators. Extremely popular in Scandinavia and now catching on in the U.S. If you've got good soil for blueberries, try these. Ripens in late summer but is best after a frost. Harvest by hand or with a blueberry rake. Will produce 1–2 lbs per plant depending on the variety and can produce for up to 20 years. Prefers full sun and poor sandy acid (pH 4.5–5) soils. Plant 12–18" apart in rows 3–4' apart. **To ensure good fruit production, plant more than one variety**. Native to the colder northern hemisphere.

Incredibly tough and very hardy. Grown in Newport, ME, by Carol Armatis of 3B Apiary. Z2. All are **ME Grown**. (potted transplants)

V. v.-i. 'Erntesegeen' 12–15" Collected by Albert Zimmer from a German heath. High-yielding upright plant produces very large berries. Slightly acid sweet fruit.

L603A Erntesegeen Lingonberry, \$15.50

V. v.-i. 'Red Pearl' 12–18" Elden Stang intro, Holland, 1983. Very adaptable fast-growing upright plant produces large berries. Somewhat lower yielding, but standard in commercial production as an excellent pollinator.

L605A Red Pearl Lingonberry, \$15.50

V. v.-i. 'Red Sunset' 8–15" Hartmann's Plant Co intro. Medium-to-large firm flavorful berries. Considered one of the most vigorous cultivars.

L606A Red Sunset Lingonberry, \$15.50

V. v.-i. 'Regal' 8–15" WI-108, Univ of WI intro, Madison, WI, 1994. From open-pollinated seed collected in southwest Finland. Highly ornamental upright plant produces firm small-to-medium berries with good flavor. Vigorous.

L607A Regal Lingonberry, \$15.50

V. v.-i. 'Sussi' 4–8" Sometimes spelled 'Susi.' Patented by the Swedish Agriculture Dept, 1985. Tall and spreading vigorous bush with moderate yields of medium berries that fruit on branch tips. Great pollinator for other varieties. **PVP**.

L609A Sussi Lingonberry, \$15.50

Lingonberry Collection Get your patch going and boost pollination with this collection of 4 plants, each a different variety. Great deal!

L610A Lingonberry Collection, bundle of 4, \$52.00



American Cranberries are shallow-rooted and require light acid soil (pH 4.0–5.5), preferably cool, moist and high in organic matter, similar to soil in which blueberries grow well. Will grow in dry locations. Plant them in spring once the ground can be worked in a bed or in a naturalized setting.



We no longer recommend mixing in sulfur to acidify the soil. Sulfur is slow-acting and can be added to soil surface in subsequent years if necessary.

Mixing it into the soil can damage tender young roots.

For a 5x5' bed (10 plants or divisions):

For acidic "blueberry" soils:

If you're fortunate to have a site where blueberries grow naturally,

clear a spot of vegetation, cultivate the soil, add some peat and sand if you like, and you're ready to plant.

Sandy soils: Remove soil 10" deep and mix soil with 2 bales of damp peat moss. Replace mixture in bed and cover with 2" of sand.

Clay or silty soils: Remove soil 10" deep and place it around the edge of the bed as a berm. Replace the soil with a 50-50 mix of soil and peat (about 2 bales of peat). Cover with an additional 2" of sand. Plant cranberries 12" apart, so the roots are in the peat and the sand is covering the lower portion of the stems.

Remove all weeds as needed. Water the plants weekly so that the peat is moist but not saturated. Add nitrogen at a rate of 1/3–1 lb (or 20–50 lbs of manure) per 100 sq feet each year. No pesticides should be necessary.

Handpick before first hard frost when berries are red.

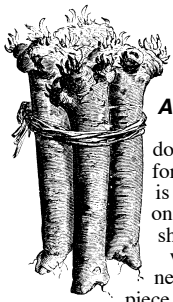
In late fall, cover the bed to protect the plants from the drying effect of winter winds. Use a mulch of leaves or pine needles; or cover with polyester row cover and then clear plastic; or cover with row cover and then plenty of leaves. You may want to bait for mice under row cover or plastic.

Remove mulch in early April. Protect flower buds from 28° frosts by covering with plastic during frosty nights.

Every two years partially cover the plants with a 1/2–1" layer of sand in spring before growth begins. This will help produce more berries and keep weeds down.

CRANBERRY CORN REMEDY A corn may be extracted from the foot by binding on half a raw cranberry, with the cut side of the fruit upon the foot. I have known a very old and troublesome corn drawn out in this way, in the course of a few nights.

- from *The American Frugal Housewife: Dedicated to Those Who Are Not Ashamed of Economy* by Lydia M. Child, 1832



Garden Roots No garden is complete without the classic triumvirate of Horseradish, Asparagus and Rhubarb!

***Armoracia rusticana* 'Big Top' Horseradish**

Exceptionally vigorous perennial with large dock-like leaves and spicy hot roots, savored for centuries for their culinary and medicinal qualities. Horseradish tea is said to be an effective control for brown rot on stone fruit. Deep taproot with numerous shallow runner roots. Choose carefully where you plant it because you may never get it all out. Even the tiniest root piece will produce a new plant. Leaves can

be cooked as greens. Roots are traditionally harvested in the fall, but you can dig them anytime. Roots keep 3-4 months in the fridge. To use as a stimulant, grate the fresh roots and mix with a little lemon juice or apple-cider vinegar and refrigerate. Use soon, then make more. Big Top is an especially disease-resistant variety. Prefers moist rich soil. Plant with the slanted cut down and the flat side up, or just toss them in and watch them grow. Native to northern Europe. Z3. (roots)

L614A Big Top Horseradish, bundle of 5, \$18.00

***Asparagus officinalis* Asparagus** A spring staple for millennia, may have originated around the Mediterranean Sea, perhaps in Asia Minor. The pharaohs, Greeks and Romans were all aware of its highly nutritious qualities and delectable flavor. The earliest known American horticultural advertisement, from March 1719, is for "English Sparrow-grass Roots."

New research shows that asparagus can be selectively harvested for 2 weeks during the second growing season, for 4 weeks in the third, and a full season thereafter. We recommend caution in harvesting. Before the third or fourth season, harvest only the largest shoots from vigorous plants so the young plants can establish themselves. Asparagus doesn't like weed competition. Uncut shoots become a light green feathery hedge, a beautiful backdrop to a flower garden. Honeybees love the dainty dangling flowers of asparagus. Occasionally non-spear-forming females will show up in a planting. Leave them be or rogue them out as you wish.

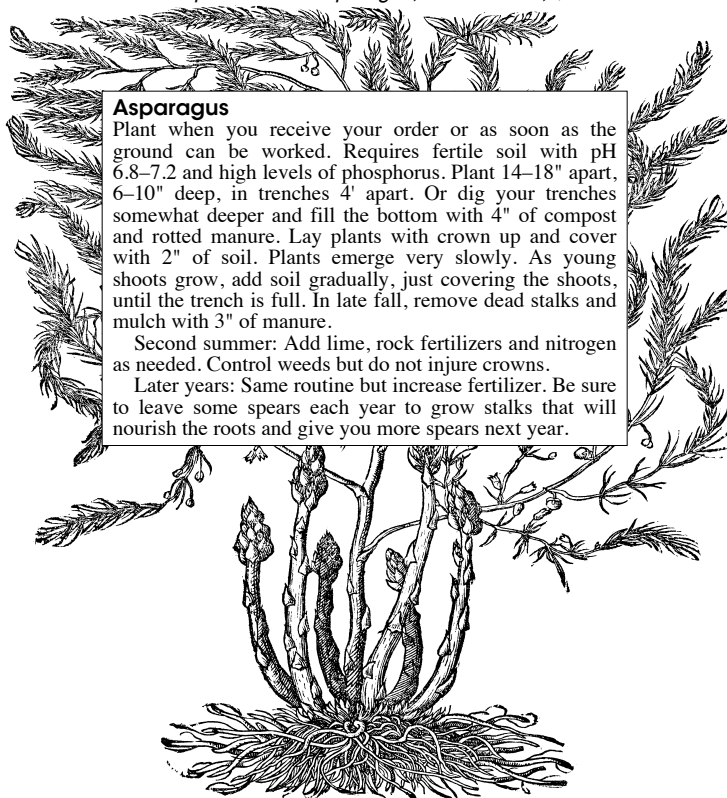
John visited friends who added Biochar to their soil. Wow, were their roots beefy! (large-rooted 1-yr crowns)

A. o. 'Jersey Supreme' Asparagus Early. Rutgers U. release in 2000. All-male hybrid that is more productive than the older all-male varieties. Excellent tolerance to asparagus rust and fusarium crown rot. Produces high yields of large-diameter tender spears in spring. Z4.

L615A Jersey Supreme Asparagus, bundle of 25, \$25.00

A. o. 'Purple Passion' Asparagus Early. Developed from the Italian heirloom Violetto di Albenga. Brian Benson intro. Very large deep purple stalk with a creamy white interior. Purple asparagus is actually a type of white asparagus shown the light. Sweeter and less stringy than its green counterparts, so you can use more of the spear. Tender enough to eat raw in salads. Turns green when cooked. Z4.

L616A Purple Passion Asparagus, bundle of 25, \$25.00

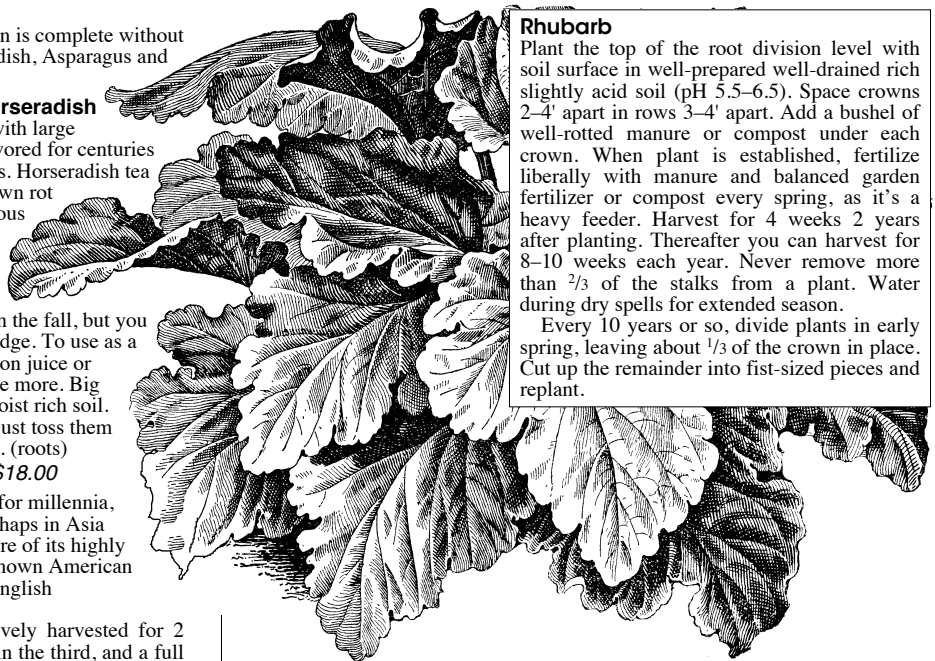


Asparagus

Plant when you receive your order or as soon as the ground can be worked. Requires fertile soil with pH 6.8-7.2 and high levels of phosphorus. Plant 14-18" apart, 6-10" deep, in trenches 4' apart. Or dig your trenches somewhat deeper and fill the bottom with 4" of compost and rotted manure. Lay plants with crown up and cover with 2" of soil. Plants emerge very slowly. As young shoots grow, add soil gradually, just covering the shoots, until the trench is full. In late fall, remove dead stalks and mulch with 3" of manure.

Second summer: Add lime, rock fertilizers and nitrogen as needed. Control weeds but do not injure crowns.

Later years: Same routine but increase fertilizer. Be sure to leave some spears each year to grow stalks that will nourish the roots and give you more spears next year.



Rhubarb

Plant the top of the root division level with soil surface in well-prepared well-drained rich slightly acid soil (pH 5.5-6.5). Space crowns 2-4' apart in rows 3-4' apart. Add a bushel of well-rotted manure or compost under each crown. When plant is established, fertilize liberally with manure and balanced garden fertilizer or compost every spring, as it's a heavy feeder. Harvest for 4 weeks 2 years after planting. Thereafter you can harvest for 8-10 weeks each year. Never remove more than 2/3 of the stalks from a plant. Water during dry spells for extended season.

Every 10 years or so, divide plants in early spring, leaving about 1/3 of the crown in place. Cut up the remainder into fist-sized pieces and replant.

***Rheum rhabarbarum* Rhubarb** Early Summer. Famous for pie and wine, but also good in sauce, bread, juice, soup or cooked with meat and fish. Rhubarb's clumps of juicy acid leaf stalks were once a staple food. The root is a toning purgative herb traditionally used every spring for thousands of years. There are dozens if not hundreds of rhubarb varieties. May have originated in Siberia and been carried across Asia on the Silk Road to Turkey and then into Europe. Victorian cookbooks included rhubarb compotes, fools and charlottes. Eventually brought to North America through the efforts of Ben Franklin and John Bartram. Low-maintenance, will continue through summer if flower stalks are removed and new leaves allowed to grow. Leaves are *not* edible.

From our trials, we've learned that rhubarb rarely comes true to type when grown from seed, a fact often undisclosed in the nursery trade. We are offering seedling crowns grown by organic farming practices at Villageside Farm in Freedom, ME. While we've listed the origin of the seed below, there will be variation within the crop. Some stalks will be green with deep red bases and others will be solid green or splashed with red. All are vigorous and delicious, and we've enjoyed them in our pies, wines and sauces. Z3. ME Grown. (single 1-yr crowns)

R. r. 'Italian Red' Rhubarb Seedlings An old Italian variety of unknown origin. The parent plants exhibit deep red stalks.

L618A Italian Red Rhubarb Seedling, \$11.50

R. r. 'Victoria' Rhubarb Seedlings Joseph Myatt intro, Manor Farm, Deptford, England, 1837. Heirloom variety. Named to honor the Queen, it was considered to be the most important rhubarb variety of the 19th c.

L619A Victoria Rhubarb Seedling, \$11.50

RHUBARB or PIEPLANT for Family Use or for Market

We are glad that we have this big supply on hand for the reason that we believe that these Rhubarb Roots, when planted in the gardens of our friends and patrons, will prove a blessing. Rhubarb is one of the most healthful foods known to man. When spring opens the human system needs an acid. Fruits have not yet supplied these acids, therefore rhubarb, or pieplant, is the only source.

Those who eat pieplant pie and sauce freely are greatly benefited. Do you realize what excellent sauce can be made from rhubarb? If you have not do not fail to start a bed, or a row, at once this spring. I prefer to plant a solid row of pieplant running from one end of the garden to the other. This row will not prevent plowing and cultivating the garden with a one-horse cultivator, and the row will not be in the way nearly so much as a bed devoted to pieplant.

- from Green's Nursery Catalogue, 1905



Mushroom Spawn Many of us are crazy about mushrooms. We love hunting for them in the damp forests during spring and fall, cooking them, tincturing them or just admiring their mysterious beauty. People have cultivated mushrooms for thousands of years. Around a century ago, American seed catalogs offered mushroom spawn bricks for 30¢ each, right there between the melons and the mustard.

We're excited to collaborate with North Spore Mushrooms to offer the following selections for you to get started on your own fungus garden. These products are all Maine-grown without pesticides, on natural substrates. You can purchase them as plug spawn and sawdust spawn. All can be refrigerated until you are ready to start growing. Detailed instructions will be sent with your order and you can find more info about each item on our website. If you're a beginner, consider starting out with a kit.

Plug Spawn Small wooden dowels colonized by mushroom mycelium. 50 plugs will inoculate a single 4' long, 4" diameter log. Drill $\frac{5}{16}$ " holes (or 8.5mm with angle-grinder adapter) into your log, hammer in the plugs and seal the holes with wax. Plugs are an excellent choice for beginners. Plugs come in batches of 100 or 500.

Sawdust Spawn Hardwood sawdust colonized by mushroom mycelium. Each bag contains 5.5 lbs of inoculated hardwood sawdust, enough for about 25 logs. Drill 12mm holes in your logs, pack the sawdust using an inoculation tool and seal with wax. Good for commercial mushroom growers. Note: Only Wine Cap may be grown on hardwood sawdust in garden paths. All other types are grown on logs.

What You'll Need The offerings we list will fruit best on hardwood logs or sawdust. Recommended log species lists will be included with instructions. Depending on the product you choose, you will need to provide your own hammer and drill. Here are a few tools to help you get a head start:

Inoculation Tool A simple hand tool for rapid inoculation of hardwood logs with sawdust spawn. (Not needed for plug spawn.) Use with 12mm drill bit holes for best results.

L622A Inoculation Tool, \$40.00

Angle Grinder Adapter Used to attach a drill bit to an angle grinder to increase

speed on large projects. Fits $\frac{5}{8}$ " spindle and takes both 12mm and 8.5mm drill bits.

L623A Angle Grinder Adapter, \$50.00

Drill Bits Specifically made for log inoculation, designed to clear the hole of sawdust as it drills to a set depth that matches plug length or sawdust dosage. For large projects, we recommend an angle grinder adapter with an 8.5mm bit for plug spawn or a 12mm bit for sawdust.

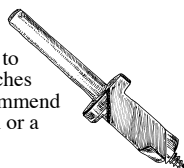
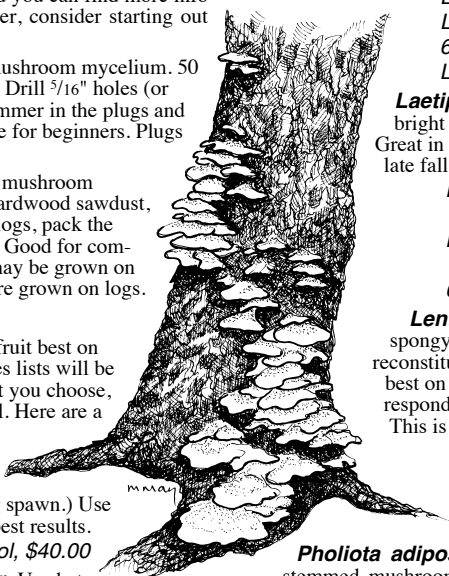
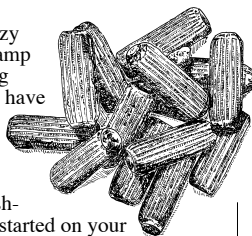
L624A $\frac{5}{16}$ " low speed drill bit, \$7.00

L625A 8.5 mm high speed drill bit with stop collar, \$20.00

L626A 12 mm high speed drill bit with stop collar, \$20.00

Sealing Wax A clear food-grade cheese wax ideal for sealing holes in inoculated logs. One pound of wax is enough to seal about 10 logs. Sealing the holes is critical to success because it protects the spawn from drying out and from contamination.

L627A Sealing Wax 1 lb., \$6.00



Mushrooms For each type, we offer the following options:

- **Plug Spawn, bag of 100 and bag of 500**

- **Sawdust Spawn, 5.5 lb bag**

- **Mushroom Kits** A kit contains 100 plugs, a small block of wax with dauber, $\frac{5}{16}$ " drill bit and instructions. Everything but the log, drill and hammer to get you started growing mushrooms. Makes a great gift. Available for all types except Chicken of the Woods and Wine Cap.

Hericium erinaceus Lion's Mane Pure white cluster of icicle-like teeth, often found on beech and birch in the wild. When cooked, they have a consistency similar to crab meat. Naturally fruits during cooler months. Due to a slower colonization rate, a higher inoculation rate should be used. Can be grown on many different hardwood species, large- or small-diameter logs.

L628A Lion's Mane Plug Spawn, bag of 100, \$15.00

L628B Lion's Mane Plug Spawn, bag of 500, \$32.00

629A Lion's Mane Sawdust Spawn, \$20.00

L630A Lion's Mane Kit, \$25.00

Laetiporus sulphureus Chicken of the Woods Large bright orange fruit bodies have a texture reminiscent of chicken. Great in soups and stir-fries. Fruits all season from late spring into late fall. Prefers large-diameter oak logs. (Not available in a kit.)

L631A Chicken of the Woods Plug Spawn, bag of 100, \$15.00

L631B Chicken of the Woods Plug Spawn, bag of 500, \$32.00

632A Chicken of the Woods Sawdust Spawn, \$20.00

Lentinula edodes Shiitake Edible brown umbrella-shaped spongy caps, very nutritious and medicinal. Good for drying and reconstituting in winter soups. Meaty texture when cooked. Grows best on oak and maple. Fruits throughout the growing season and responds well to commercial forced-fruited production methods. This is the Wide Range Shiitake we offered last year.

L633A Shiitake Plug Spawn, bag of 100, \$15.00

L633B Shiitake Plug Spawn, bag of 500, \$32.00

634A Shiitake Sawdust Spawn, \$20.00

L635A Shiitake Kit, \$25.00

Pholiota adiposa Chestnut Produces clusters of orange-brown thin-stemmed mushrooms that fruit during cooler months. Prized by chefs for their unique woody nutty flavor. Grows well on a range of hardwood species, especially cherry.

L636A Chestnut Plug Spawn, bag of 100, \$15.00

L636B Chestnut Plug Spawn, bag of 500, \$32.00

637A Chestnut Sawdust Spawn, \$20.00

L638A Chestnut Kit, \$25.00

Pleurotus citrinopileatus Golden Oyster Tropical oyster strain that thrives in warm weather. Produces beautiful clusters with yellow caps that are a favorite at farmers markets. Grows well on many different hardwood species including oak, maple and poplar.

L639A Golden Oyster Plug Spawn, bag of 100, \$15.00

L639B Golden Oyster Plug Spawn, bag of 500, \$32.00

640A Golden Oyster Sawdust Spawn, \$20.00

L641A Golden Oyster Kit, \$25.00



P. ostreatus Grey Oyster Very popular fleshy firm edible grey-white oyster-shaped caps often found growing on old dying maple trees. Our most productive oyster strain. Reliable and cold tolerant, fruits prolifically in early spring or late fall. Grows well on many different hardwood species including oak, maple and poplar.

L642A Grey Oyster Plug Spawn, bag of 100, \$15.00

L642B Grey Oyster Plug Spawn, bag of 500, \$32.00

643A Grey Oyster Sawdust Spawn, \$20.00

L644A Grey Oyster Kit, \$25.00

P. pulmonarius Italian Oyster Clusters of tender brown caps with thick white stems. Considered to be one of the finest culinary oyster mushrooms. Also considered to be very medicinal with cardiovascular and cholesterol-controlling benefits. Grows well on many different hardwood species including oak, maple and poplar.

L645A Italian Oyster Plug Spawn, bag of 100, \$15.00

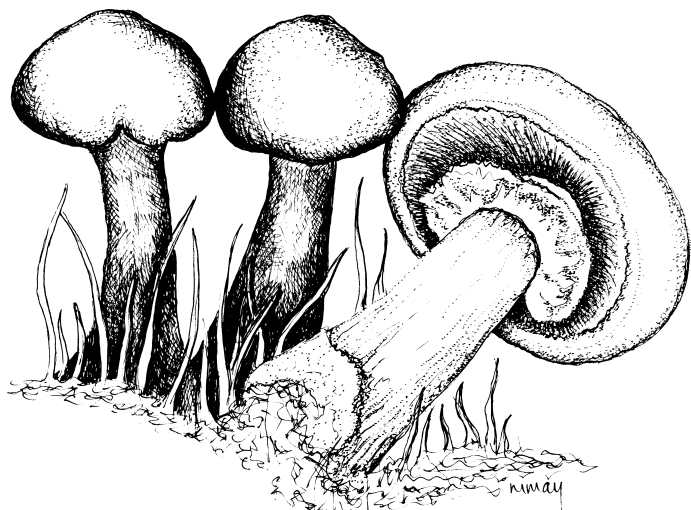
L645B Italian Oyster Plug Spawn, bag of 500, \$32.00

646A Italian Oyster Sawdust Spawn, \$20.00

L647A Italian Oyster Kit, \$25.00

Stropharia rugosoannulata Wine Cap Vigorous red-capped fruiting bodies for growing in non-sterile environments such as outdoor sawdust beds, wood chips and straw. Prefers hardwood chips but will grow on a mix of soft and hard. Once established, they will produce for several years and can be easily transplanted to fresh woody debris beds. (Available as sawdust spawn only.)

648A Wine Cap Sawdust Spawn, \$20.00



Herbaceous Perennial Plants Most of the perennial plants we offer are hardy at least into Zone 4 unless otherwise noted. USDA hardiness zone (chart on page 71) follows each description. The list is alphabetized by botanical name in italics, followed by common name. All plant stock is bare root unless otherwise noted.

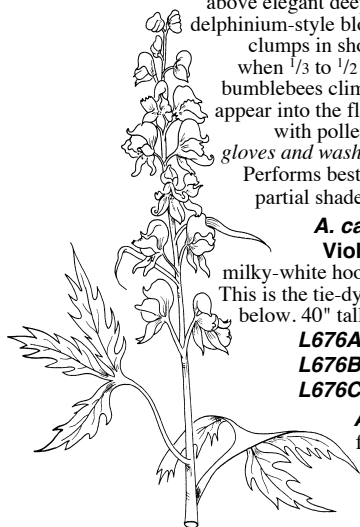
***Achillea millefolium* 'Strawberry Seduction'**

Yarrow Blooms June through September featuring 2–3" flat-topped heads of little strawberry-red flowers with small bright yellow eyes. Dark green fern-like foliage is aromatic when crushed. Excellent for fresh and dried arrangements. We chose this cultivar for its compact, sturdy and robust habit and its appeal to beneficial insects. Prompt removal of faded flower heads guarantees a long season of blooms. Plant crowns 12–24" apart in well-drained soil, full sun to part shade. 18–24" tall. See page 63 for native medicinal white yarrow. Z3.

L675A: 1 for \$6.75
L675B: 3 for \$17.75
L675C: 6 for \$31.50



***Aconitum* English Monkshood or Friar's Cap** Produces a mass of late-summer blooms with dense showy spikes of helmet-shaped flowers held above elegant deep green glossy palmate foliage. Grand delphinium-style blooms rarely need staking. Forms large clumps in short order. An excellent cutflower—cut when 1/3 to 1/2 the spike is in bloom. I love watching bumblebees climb under the hood and completely disappear into the flowers then clamber out again covered with pollen. *The entire plant is poisonous; wear gloves and wash your hands after handling or cutting.* Performs best when planted under tall trees. Prefers partial shade. Plant 15–20" apart in moist soil. Z3.



***A. cammarum* Bicolor Monkshood or Violet Wolf's Bane** Soft violet-blue and milky-white hoods with deep violet-blue lower petals. This is the tie-dyed version of the classic variety listed below. 40" tall.

L676A: 1 for \$4.75
L676B: 3 for \$12.25
L676C: 6 for \$21.50

A. napellus Classic deep violet-blue flowers. 36" tall.

L677A: 1 for \$4.25
L677B: 3 for \$10.00
L677C: 6 for \$18.00

Planting Instructions for Bare-Root Perennial Plants

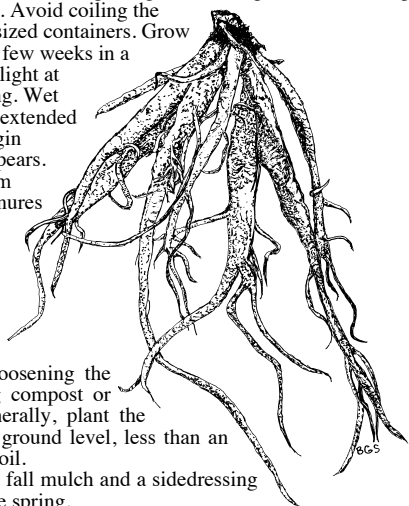
For the first growing season, let new perennials focus on root growth. Once established, usually in the second year, they are vigorous and floriferous.

When you receive your order, open the bags and check the stock immediately. Roots and crowns should be firm and pliable, not soft or brittle. If they are slightly dry, add a little water or, if they are going to be potted up soon, soak the roots. Generally, a little surface mold is harmless and will not affect the plant's future performance. If you cannot pot them up immediately, store them in a cool (35–40°) location for a short time.

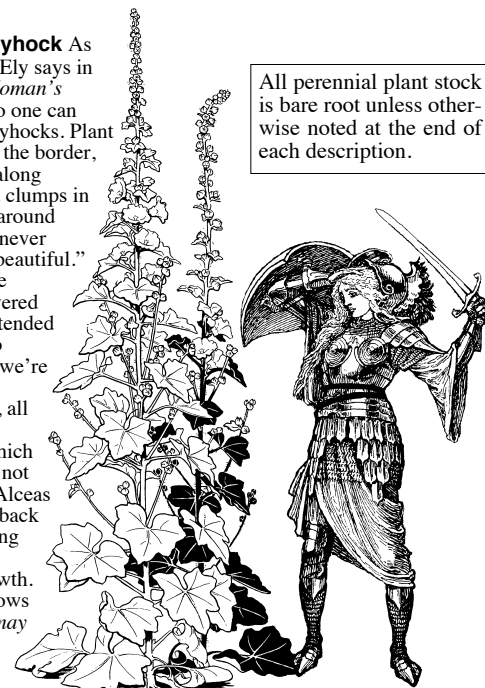
Pot up the rootstock in well-drained potting mix. Most plants need a deep 6" pot or a 1-gallon container. Avoid coiling the roots in the bottom of under-sized containers. Grow newly potted perennials for a few weeks in a protected location in indirect light at 50–60° and keep from freezing. Wet and/or cold conditions for an extended period may cause rotting. Begin feeding when new growth appears. Keep dry fertilizers away from plant crowns. Use animal manures with caution as they can promote fungal and bacterial diseases.

Transplant outside once they show some top growth and the danger of frost has passed. Dig a hole about twice the size of the pot, loosening the surrounding soil and adding compost or fertilizers as necessary. Generally, plant the top of the crown just below ground level, less than an inch from the surface of the soil.

All perennials appreciate a fall mulch and a sidedressing of compost or leaf mold in the spring.



***Alcea rosea* Hollyhock** As Helena Rutherford Ely says in her 1903 book *A Woman's Hardy Garden*, "No one can have too many hollyhocks. Plant them at the back of the border, among shrubbery, along fences, and in good clumps in any odd corner, or around buildings; they are never amiss, and always beautiful." Hollyhocks produce towering spires covered with flowers for extended bloom from June to October. This year we're offering first-year-flowering cultivars, all singles from the Spotlight Series, which are truly perennial, not biennial like most *Alceas* on the market. Cut back to 12" after flowering has finished to encourage root growth. Plant 12" apart. Grows 5–6' tall. *Supplies may be limited. Order early!* Z3. 3 1/2" plug stock.



All perennial plant stock is bare root unless otherwise noted at the end of each description.

A. r. 'Black Knight' A dusky midnight-purple beauty with a tiny yellow eye. Night gathers, and now my watch begins. I shall live and thrive at my post. I am the shield that guards the garden gate. I shall not be eaten by Japanese beetles—for in my dreams, they only have eyes for the golden-petaled beauties. I pledge my life and honor to lead you safely up the garden path, for this night and all the nights to come.

L678A: 1 for \$4.50
L678B: 3 for \$11.75
L678C: 6 for \$22.00

A. r. 'Mars Magic' Bring a vintage look back to your homestead with this classic single bright red hollyhock. For those who missed out last season, we are listing this popular cultivar again.

L679A: 1 for \$4.50
L679B: 3 for \$11.75
L679C: 6 for \$22.00

A. r. 'Radiant Rose' Old-fashioned bright rose-pink blossoms. I planted mine with Black Knight at the corner of my hyssop bed. It's a veritable pollination cafe when the flowers come out—a steady buzz of hummingbirds and mason bees abounds.

L680A: 1 for \$4.50
L680B: 3 for \$11.75
L680C: 6 for \$22.00

***Aquilegia* Columbine** Delightful little

stacks of round-lobed leaves emerge in early spring when not much else is green. Soon after, magical jewel-like nodding blossoms dance above the foliage. The elegant slender spurs are filled with nectar irresistible to pollinating hummingbirds. Blooms from late May to early June. Prefers light moist well-drained soil. Best planted en masse, 12–18" apart, in dappled shade to guarantee the best color. Z3.

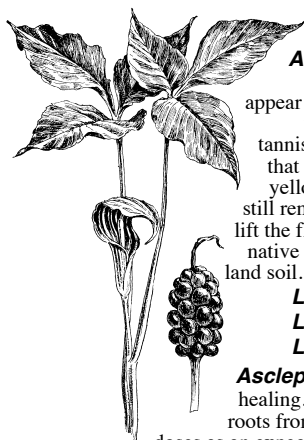


***A. canadensis* Wild Columbine** This lovely northeast American native features delicate red-spurred sepals with yellow petaled skirts. 12–24" tall. Nursery propagated.

L681A: 3 for \$9.50
L681B: 6 for \$16.50
L681C: 12 for \$29.00

***A. x hybrida* 'McKana Giants'** An old British hybrid of uncertain parentage combines the delights of the wild columbine habit with longer bloom time and giant flowers sporting long spurs and a bright bold assortment of colors, including bicolors. Excellent for cutting. 24–30" tall.

L682A: 1 for \$3.00
L682B: 3 for \$8.00
L682C: 6 for \$14.00



Arisaema triphyllum Jack-in-the-Pulpit

In midspring one or two compound leaves appear close to the ground, each with three leaflets framing an upright stem topped by a striped tannish-purple 3" long cuplike spathe (the pulpit) that contains and arches over the erect greenish-yellow spadix (Jack). It's a great pleasure, one I still remember, for the two- or three-year-old set to lift the flap and see Jack. This magical Northeastern native prefers dappled shade and moist rich woodland soil. Nursery propagated. Z3.

- L683A:** 1 for \$4.25
L683B: 3 for \$10.00
L683C: 6 for \$18.00

Asclepias Named for Asclepius, the Greek god of healing. Commonly known as **Pleurisy Root**, dried roots from the genus were traditionally used in small

doses as an expectorant, anti-inflammatory and general tonic. Attracts all manner of bee and butterfly. Watch one of the miracles of summer unfold before your eyes as monarchs lay their eggs on the leaves—a nutritious food source for the resulting caterpillars. Both MOFGA-certified organic, grown at Ripley Farm in Dover-Foxcroft. Z3. **ME Grown.**

A. incarnata Swamp Red Milkweed This is not the common milkweed so familiar to all of us in the Northeast. *Asclepias incarnata* forms unique flattened clusters of upturned red-rose-colored flowers. Willow-like leaves are 4–5" long. Grows naturally in floodplains and wet meadows. Prefers moist soil. Clump-forming, great for naturalizing. 5' tall.

- L684A:** 1 for \$6.50
L684B: 3 for \$16.50
L684C: 6 for \$29.00

A. tuberosa Butterfly Weed Undeniably the most brilliant summer wildflower in North America, featuring vivid tangerine-orange clusters of flowers atop slender fuzzy stems, covered with green lance-shaped leaves. Spent flowerheads transform into prominent spindle-shaped seed pods that make a unique addition to mixed bouquets. The fleshy taproot will not tolerate clay or low ground. Plant in full sun, 18–24" apart in well-drained fertile soil. 24" tall.

- L685A:** 1 for \$6.50
L685B: 3 for \$16.50
L685C: 6 for \$29.00

Astilbe Feather Flower or False Spirea Long-lasting plumes of feathery flowers are good for drying and provide interesting contrast to petaled blossoms. Elegant fern-like foliage forms an attractive clump all season and comes in a wide range of shades and sizes. Convention holds Astilbe to be a partial-shade plant that absolutely requires a moist humusy acid soil when grown in full sun. That's true in warmer areas, but in central Maine it seems to tolerate full sun in a wide range of conditions. Plant 12–18" apart and divide clumps every few years. Z4.

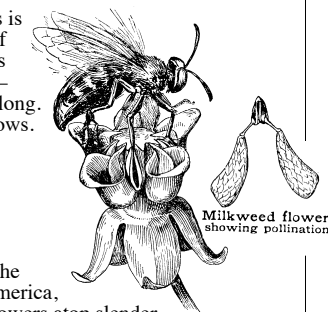
A. chinensis 'Mighty Red Quin' Ravishing red plumes. Chameleon-like foliage shifts red to brown to green. Mid- to late-season blooms. 48–50" tall.

- L686A:** 1 for \$4.75
L686B: 3 for \$12.50
L686C: 6 for \$22.00

A. c. 'Purple Rain' Dense lilac-purple plumes on deep green foliage. Mid- to late-season blooms. 18–21" tall.

- L687A:** 1 for \$4.75
L687B: 3 for \$12.50
L687C: 6 for \$22.00

Throughout the catalog you will find plants with common traditions of medicinal use. These include Asclepias, bee balm, blueberry, elderberry, high and lowbush cranberry, hops, lavender, linden, rose, solomon's seal, witch hazel, eastern white pine and more. Our descriptions include notes about traditional medicinal use. The statements in our catalog regarding traditional medicinal uses of plants have not been evaluated by the Food and Drug Administration. The plants we sell are not intended to diagnose, treat, cure or prevent any disease.



Milkweed flower showing pollination



Baptisia australis Blue False Indigo An early summer stand-out with vibrant blue lupine-like flowers. Seed pods turn black in fall, adding interest to the autumn landscape and providing a unique element to dried floral arrangements. Has a bushy habit and shrub-like structure once mature. Will develop an extensive root system, good for holding slopes to prevent erosion. Baptisia is a member of the pea family, and you'll notice a resemblance in its foliage and flowers, as well as its fondness for cooler weather. Plant 3' apart in full sun and well-drained acid soil. Grows 3–4' tall and just as wide. Z3.

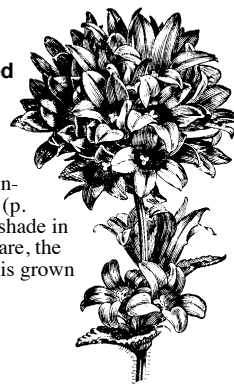
- L688A:** 1 for \$5.75
L688B: 3 for \$15.75
L688C: 6 for \$28.00

Campanula glomerata 'Superba' Clustered Bellflower

Spherical clusters of upward-facing bell-shaped violet-blue to deep royal-purple flowers form atop dense rhizomatous basal clumps of slightly fuzzy foliage. Highly recommended for cutflower production. Absolutely stunning in mixed bouquets with Rattlesnake Master (p. 57) and Butterfly Weed. Plant in full sun to part shade in average well-drained soil. The farther north you are, the more sun it requires. Our certified-organic stock is grown at Ripley Farm in Dover-Foxcroft. 28" tall. Z3.

ME Grown.

- L689A:** 1 for \$6.50
L689B: 2 for \$11.25
L689C: 3 for \$15.00

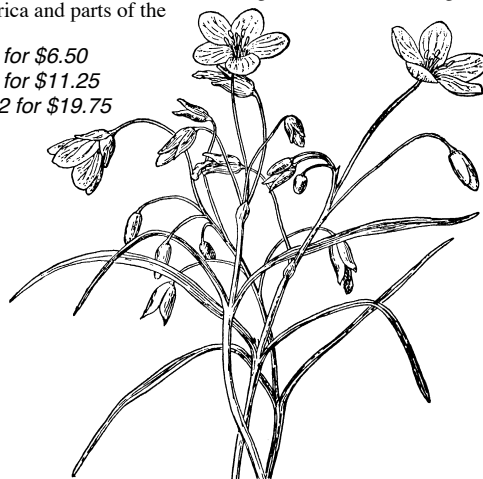


Chelone obliqua Turtlehead Boldly veined deep-green leaves topped by elegant spikes of pink hooded flowers that are shaped very much like a turtle's head. Try planting en masse at the mouth of a woodland path. Deer avoid the bitter foliage. Perfect in moist woods or at the water's edge—these pleasing late-season flowers will flourish in a wide range of soils, from clay to sandy, as long as they're not waterlogged. Plant about 12" apart in dappled sunlight. Grows 2–3' tall and just as wide. Z4.

- L690A:** 1 for \$4.25
L690B: 3 for \$10.00
L690C: 6 for \$17.00

Claytonia virginica Spring Beauty Native spring ephemeral. Magical clusters of 5-petaled star-shaped blossoms are white to light pink with darker pink veining and pink anthers. Attractive deep green grass-like foliage. Spreads by small edible underground corms. Hosts the spring beauty mining bee, *Andrena erigeniae*. Plant 6–10" apart in dappled sun or shade under established trees and shrubberies in moist well-drained woodland soil. Grows wild in moist rich woods, thickets, clearings and wetlands throughout eastern North America and parts of the UK. 3–6" tall. Z6.

- L691A:** 3 for \$6.50
L691B: 6 for \$11.25
L691C: 12 for \$19.75



Native Spring Ephemeral Plants and their Relatives When the sun begins to melt the snow and warm the forest floor before the trees leaf out, ephemeral perennials take the stage with uniquely breathtaking early flowers. By summer these fleeting beauties tire of the limelight and retreat back to the earth to build their strength for the next big show the following spring. Planting spring ephemerals provides a much-needed early food source for pollinators and makes walking through the woods in early spring even more interesting than usual!

This year we're thrilled to offer four rare high-quality nursery-propagated native spring ephemerals:

- Claytonia virginica Spring Beauty**
Dicentra cucularia Dutchman's Breeches
Erythronium americanum Yellow Trout Lily
Sanguinaria canadensis Bloodroot

Please note that the stock may be a little smaller than our other bare-root perennials, but they'll size up quickly if given the optimal growing conditions recommended in each description.

Clematis Gorgeous ascending perennial vine. Clematis is never found alone in the wild and prefers to climb or crawl onto arbors, balconies, fences, small buildings, stone walls and even other plants. I planted mine underneath a 12' tall highbush cranberry along with my delphiniums and trolius—in a few years it will reach up into the entire shrub and look fabulous! Plant in rich well-drained loamy soil. Mulch to keep the roots cool and evenly moist. Provide firm support of solid wood or metal, or plant under a shrubby for it to grab onto. Remove dead tips in February or March. Z4.

C. 'Ernest Markham' Handsome velvety magenta-red star-shaped flowers with golden anthers. Expect the heaviest blooms in late summer and fall. For a heavier bloom later in the season, prune all the stems back in February or March to 12" above ground, making your cuts above the old leaf joints. This variety performs equally well in full sun or part shade. 8–16' tall.

L692A: 1 for \$13.50
L692B: 2 for \$23.00
L692C: 3 for \$31.00

C. 'Fujimusume' Cool cascades of large single wisteria-blue blossoms. Excellent choice for container planting but will thrive directly in the ground. Like most clematis, prefers its roots cool, but plenty of sun. 6–8' tall.

L693A: 1 for \$14.50
L693B: 2 for \$25.00
L693C: 3 for \$34.00



Delphinium New Millennium Stars Mix This hybrid series mix of first-year-flowering delphiniums features some of the most glorious cultivars I've seen—Black Eyed Angels, Blue Lace, Cobalt Dreams, Lilac Ladies, Moonlight Blues, Pagan Purples and Pink Punch, to name a few. Elegant cylindrical terminal flower spikes rise 3–6' above waist-high clumps of palmate glossy green foliage. The New Millenniums develop thicker sturdier flower stalks than the more widely known Pacific Giants. Considered more tolerant to heat and humidity than many standard cultivars, yet the New Millenniums also thrive in super-chilly corners of the world with reports of successful perennial plantings in frosty parts of Canada and even Alaska! Avoid overhead

watering to prevent disease. Mulch recommended to keep the roots cool and moist. Delphiniums are hungry hippos—sidedress regularly with compost for best bloom. Plant 32" apart in highly fertile non-acid loam. Light shade is best but full sun is fine. 60" tall. Z3. This year's stock is 3 1/2" plugs.

L694A: 1 for \$5.75
L694B: 3 for \$14.50
L694C: 6 for \$26.00

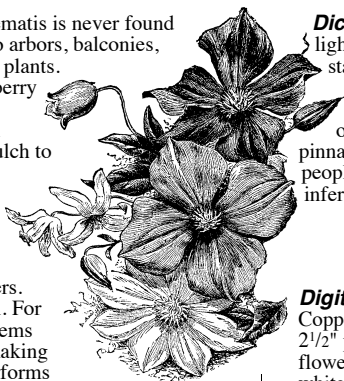
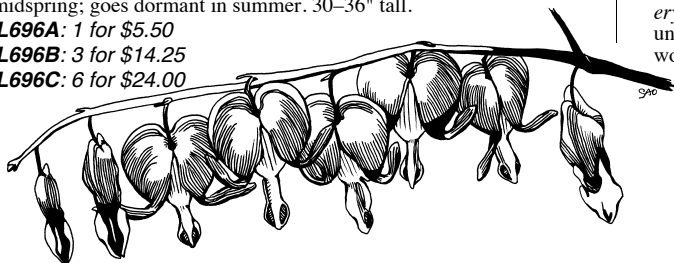
Dicentra Graceful racemes arch over clumps of attractive cut foliage. Distinctively shaped flowers dangle in a row on each raceme like charms on a bracelet. Thrives in rich moist soil and partial shade. Plant 2–4" deep, 24" apart. Z3.

D. cucularia Dutchman's Breeches Native spring ephemeral. White yellow-tipped flowers look like tiny pantaloons suspended above intricately cut grey-green foliage. Blooms in April-May with the daffodils. Native eastern wildflower thrives in any moist but not soggy woodland setting. 8–12" tall. Nursery propagated.

L695A: 3 for \$9.50
L695B: 6 for \$16.50
L695C: 12 for \$29.00

D. spectabilis Old-Fashioned Bleeding Heart Distinctive pink heart-shaped flowers define this classic hardy long-lived perennial. Blooms early through midspring; goes dormant in summer. 30–36" tall.

L696A: 1 for \$5.50
L696B: 3 for \$14.25
L696C: 6 for \$24.00



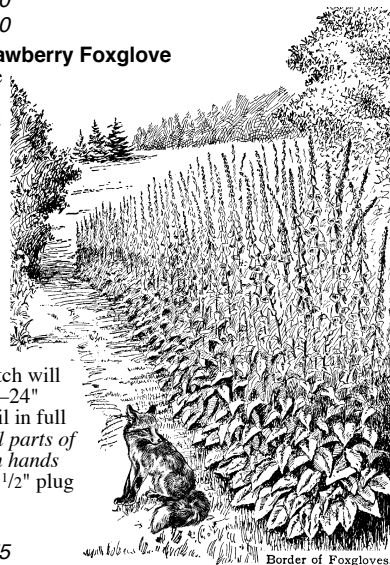
Dictamnus albus 'Purpureus' Gas Plant Terminal spikes of pretty light pink 5-petaled flowers with long protruding stamens. Flowers and star-shaped seed pods contain flammable oils that flare in a quick vapor burn when touched by a flame. This is harmless to the plant and a sight to behold! Look it up on YouTube, or better yet, try it yourself on a windless night. Forms bushy clumps of leathery glossy green pinnate leaves. Aromatic foliage can cause allergic skin reactions in some people, so wear gloves when handling. Plant 18–20" apart in full sun in infertile humusy well-drained soil. 24–36" tall. Z3.

L697A: 1 for \$8.25
L697B: 2 for \$14.50
L697C: 3 for \$19.50

Digitalis mertonensis Strawberry Foxglove

Copper-tinged strawberry-rose 2 1/2' pendulous bell-shaped flowers adorned with pink and white spotted throats form along stately spires above basal rosettes of deep green velvet foliage. Flowers June through August. Good for cutting or the naturalized border. The hardest foxglove for northern gardens. Considered perennial but is best treated as biennial. Spread out the seedlings as they appear and a glorious patch will result in a few years. Plant 12–24" apart in moist slightly acid soil in full sun to part shade. *Caution: all parts of the plant are poisonous; wash hands after handling.* 2–4' tall. Z3. 3 1/2" plug stock.

L698A: 1 for \$4.50
L698B: 3 for \$11.75
L698C: 6 for \$22.00



Echinops bannaticus 'Blue Glow' Globe Thistle Luminous 1 1/2" steel-blue spiky spheres balance atop stiff stems with deeply divided silvery green leaves. Excellent addition to wreaths and fresh or dried arrangements. Blooms July to August. Beloved by bees. Tolerates shallow rocky ground. Plant 1–2' apart in full sun and well-drained soil. 3–4' tall. Z3.

L699A: 1 for \$5.50
L699B: 3 for \$14.25
L699C: 6 for \$24.00



Eryngium yuccifolium Rattlesnake Master

Shimmering globe-thistle-like 1" greenish-white flowerheads with feathered silvery-green bracts on smooth stiff stems surrounded by sharply cut leathery foliage. Emits a subtle honey-like scent during the heat of the day. This North American native exhibits a rare and beautiful silhouette wherever it grows. Fabulous for cutflower production—an excellent bouquet-builder, providing good structure for arrangements. Attracts numerous types of long- and short-tongued bees, wasps, flies, butterflies, moths and beetles. Prefers full sun and well-drained sandy soils. Self-seeds freely over time. Plants tend to open up and sprawl if grown in rich soils or in anything less than full sun. Forms a taproot and is best left undisturbed once established. Our certified-organic stock is grown at Ripley Farm. 3–6' tall. Z3. **ME Grown.**

L700A: 1 for \$7.25
L700B: 2 for \$12.50
L700C: 3 for \$16.50

Erythronium americanum Yellow Trout Lily or Dog Tooth Violet

Native spring ephemeral. Bright yellow nodding blossoms appear singly in March and last into April above trout-shaped olive-green basal leaves with beautiful reddish-brown mottling. Underground corms with fibrous roots and up to 3 stolons spread below the leaf litter, developing direct offshoots from the mother plant. Forms a dense ephemeral groundcover over time. It could be up to 5 years before you see a flower. Young flowerless plants are single leaved, and mature plants are 2-leaved and produce single flowers. This beautiful North American native hosts the trout lily mining bee, *Andrena erythronii*. Grows wild in rich damp open woodlands. Plant in dappled shade under established trees and shrubberies in moist well-drained slightly acidic woodland soil. 6" tall. Z3.

L701A: 3 for \$18.25
L701B: 6 for \$31.00
L701C: 12 for \$56.00

I always think of my sins when I weed. They grow apace in the same way and are harder still to get rid of.

—Helena Rutherford Ely, *A Woman's Hardy Garden*, 1903



Ferns These flowerless spore-producing perennials are represented by more than 10,000 species worldwide, ranging from 70' tropical tree ferns to teensy plants sprouting from cracks in alpine rock. In Maine we enjoy lush fern displays all summer on the roadsides and in the woods. More and more people are using ferns as foundation plantings and in all kinds of shaded spots. Ferns make wonderful low-maintenance foliage plants that thrive in moist woodsy humus-rich soil and lend a serene aura to a shady garden or landscape. Mulch if necessary to keep crowns from drying out. All of our ferns are nursery propagated and not dug from the wild. Stock type noted at the end of each description.

***Adiantum pedatum* Maidenhair Fern or**

Eastern Maidenhair Fern Delicate whorled form makes it one of my favorites. Glossy black stems curve up and then droop toward the ground with more narrow black stems growing in elegant arches from the main stem. Tiny distinct ginkgo-like green leaves line every stem. Plant 12" apart. Native to eastern North America. Grows 10–12" tall. Z2. (Bare-root crowns)

L702A: 1 for \$3.00

L702B: 3 for \$8.00

L702C: 6 for \$14.00

***Dennstaedtia punctilobula* Hay-scented Fern**

Flourishes in bright shade in dry woodlands, even in the sun on rocky slopes and stony fields. Delicate ferny foliage is yellow-green and has hairy surfaces that give a soft nonreflective quality. On sunny days or when crushed or dried, it smells like (you guessed it) hay.

Fronds sprout every few inches along creeping rhizomes to form large colonies. Tolerates poor soil. Makes an excellent spreading groundcover for a troublesome spot but can be a bully, so be mindful where you plant it. Native to eastern North America. 18–32" tall. Z3. (Bare-root crowns)

L703A: 1 for \$5.50

L703B: 3 for \$14.00

L703C: 6 for \$24.00

***Matteuccia struthiopteris* Ostrich Fern** One of the largest hardy deciduous ferns, Ostrich Fern features beautiful bright green frond tips that curl like ostrich feathers, making this our best-selling fern for many years. Spreads by underground runners, and will form large colonies if given the chance. Likes open shade, woods and wet banks. Tolerates sun in swampy areas. Native to Europe, but well established and welcome in North America. 3–6' tall. Z2. (3–4" deep x 2 3/4" nursery-propagated seedlings)

L704A: 1 for \$5.50

L704B: 3 for \$14.00

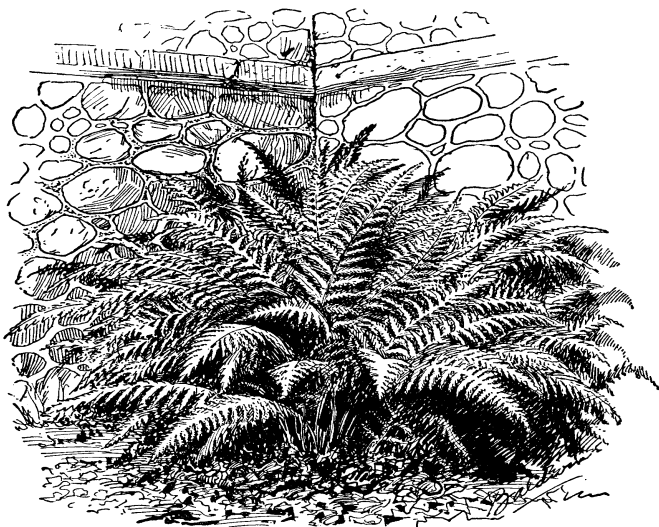
L704C: 6 for \$24.00

***Osmunda regalis* Royal Fern** One of the showiest garden ferns makes a great focal point at the waterside or in a woodland. Attains giant proportions! Soft and wavy deciduous lance-shaped light green fronds can reach 3' long. Sometimes called **Flowering Fern** because some of the fronds have brown spore cases on their tips that lend a decorative tassel-like appearance. Reaches up to 6' tall and more than 9' wide at maturity. Evolutionarily speaking, *Osmunda* is one of the oldest plant genera, native to North and South America and Asia. Some Royal Fern individuals are said to be 1000 years old. Ours are much younger. Z3. (Bare-root crowns)

L705A: 1 for \$3.00

L705B: 3 for \$8.00

L705C: 6 for \$14.00



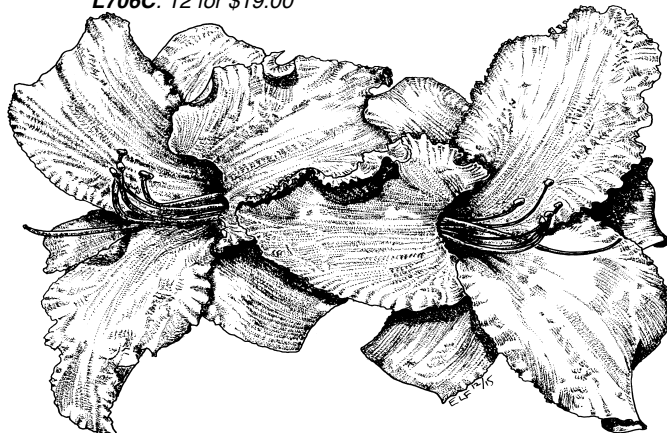
***Geranium maculatum* Spotted Cranesbill**

or Wild Geranium Clusters of single 1 1/4" wide pinkish-lilac saucer-shaped flowers. The deeply cut leaves turn vivid shades of reddish-orange in autumn and distinctive long narrow "cranesbill" seedpods flutter jauntily above the spreading foliage. Vigor, longevity, hardiness, lo-o-ong flowering period and lush attractive foliage make this North American native useful for borders, edging, rock gardens or as an orchard companion. This is the true geranium. Name confusion may be a big reason why this attractive easy-to-grow genus is not more popular: the tender bedding and indoor plant with big red flowers often called geranium is actually *Pelargonium*. For best results plant in the lightly shaded areas of wild open woodland gardens or in the orchard underneath your ancient apple trees. Plant 12–18" apart in average garden soil. 24" tall. Z4.

L706A: 3 for \$6.50

L706B: 6 for \$11.25

L706C: 12 for \$19.00



***Hemerocallis* Daylily** Champion low-maintenance perennial produces a bush of narrow arched leaves topped with lily-shaped flowers from July to September. *Hemerocallis* means 'beautiful day,' referring to the fact that each flower lasts only a day, but since each scape (or stem) is covered with buds, bloom periods can be extensive and the long stems work well in bouquets. Trouble-free, chokes out weeds. Flourishes under a wide range of conditions, from full sun to shade, wet to dry. Plant 12–18" apart in average soil; benefits from an annual shovel or two of compost. We have increased the size of our daylily stock to two fans. More fans equal more flowers! Z2.

H. 'Bela Lugosi' Deliciously dark and dusky purple blossoms with gently waved petals, greenish-gold centers and luminous lime-green throats span 6" across. Superbly sunfast for such a dark color, which holds up beautifully even in the hottest sun and driest summers when most dark daylilies fade out. Excellent bud-count and sturdy stems. Midseason blooms. 33" tall.

L707A: 1 for \$7.00

L707B: 3 for \$17.75

L707C: 6 for \$32.00

H. 'Brave World' Glowing rosy-red 6" flowers have slightly ruffled edges and radiant tangerine throats. Do venture onto our website to catch a glimpse of the rich dramatic colors—the handsome blossoms caught my eye from 50 yards away. Up close, they looked good despite the dry conditions of 2016. Midseason re-bloomer. 27" tall. **ME Grown.**

L708A: 1 for \$6.50

L708B: 2 for \$11.25

L708C: 3 for \$15.00

H. 'Fragrant Returns' Sweetly scented 4" luminous lemon-yellow flowers with subtly ruffled edges. Everblooming variety starts early and goes till frost! 18" tall.

L709A: 1 for \$5.25

L709B: 3 for \$13.75

L709C: 6 for \$24.50

H. 'Regency Heights' Cascading slightly ruffled and recurved lavender petals with expansive lemon-yellow throats. Blossoms span 6" across. Midseason extended blooms! 34" tall.

L710A: 1 for \$5.25

L710B: 3 for \$13.75

L710C: 6 for \$24.50

H. 'Siloam David Kirchoff' Dreamy orchid-lavender flowers with cerise penciled eyezones and apple-green throats. Petite blossoms span 3 1/2". Early to midseason blooms. 16" tall. **ME Grown.**

L711A: 1 for \$6.50

L711B: 3 for \$15.00

L711C: 2 for \$11.25

Hibiscus moscheutos 'Perfect Storm' Hardy Hibiscus Glorious vigorous plant with grand 7–8" wide disc-shaped flowers. Perfect Storm has 5 overlapping white petals edged in light pink with a bright red eye radiating out with the petal veins. So eye-catching you'll have endless drive-by smartphone junkies knocking on your door to take a photo and post it. Gee whiz.

Hibiscus is one of the last plants to emerge in spring—be careful not to root it out during spring cleanup.

After emerging, it grows like crazy. Starts blooming mid to late summer and goes until frost. Though native to southern swampy margins and meadows, hibiscus will tolerate dry soil once fully established. Plant 18–24" apart in full sun and average garden soil. 3' tall. We are not kidding when we say this plant is hardy to Zone 4!

L712A: 1 for \$10.50

L712B: 2 for \$18.25

L712C: 3 for \$24.00



Hosta Bold foliage forms orderly mounds with dependable sprays of fragrant bell-shaped flowers on tall stalks. Valuable and cherished low-maintenance border plant provides shade-loving groundcover from spring to frost. With their varying colors, textures and clump sizes, hostas alone under trees can make a woodland garden. Hostas tolerate a wide range of soil conditions but need moisture. Those with blue and variegated leaves develop their best color in shade. Deep shade gives fewer flowers. Plant 2–4' apart in rich soil with adequate humus. Divide every 4–5 years, or disturb clumps as little as possible; they improve with age as they spread and establish. Z3.

H. 'Brother Stephan' Hosta enthusiasts crave this cultivar for its unusual color variation and sturdy clumps of thick heavily corrugated leaves with golden maple-leaf-patterned centers and irregular deep green margins. White flowers. Slow to mature, so put on your patience pants and plant this brother where he can strut his stuff. 25" tall and 30" wide.

L713A: 1 for \$9.25

L713B: 2 for \$15.50

L713C: 3 for \$21.50

H. 'Guardian Angel' A hosta like no other! I planted one of these angels along our woodland path in 2014 and have fallen in love with the mystical color-changing display. In early spring, large thick heart-shaped blue-green leaves display creamy-white centers. By late spring, a distinctive green misting appears over the white. By mid-to-late summer, the center of the leaf changes color again to a cool misty blue. Lavender flowers. A fabulous sport of Blue Angel. 24" tall and 56" wide.

L714A: 1 for \$5.50

L714B: 3 for \$13.00

L714C: 6 for \$23.00

Humongous Hostas Mix Fulfill your shadiest garden fantasies! We will choose six of the biggest hosta varieties we can get our hands on, all listed as "Giants," in a variety of solid blues, solid greens, dark margins with light centers, and light margins with dark centers.

Size matters: will be no shorter than 30" tall and up to 80" wide at maturity. Each plant will be individually bagged and labeled by name.

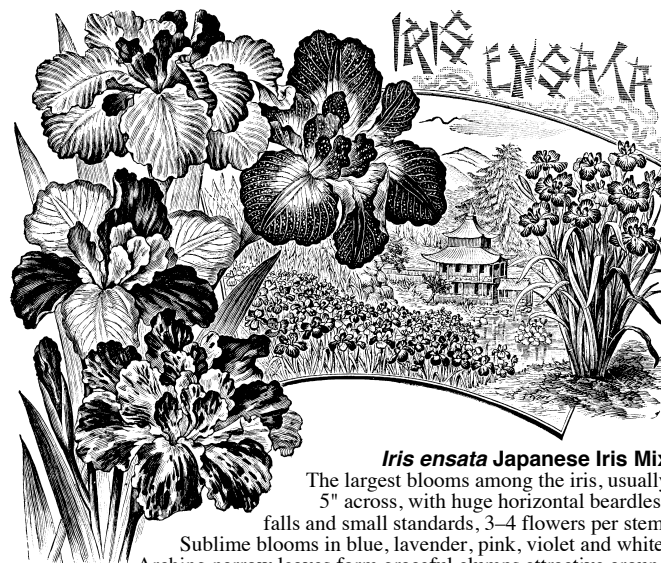
L715A: 6 for \$31.50



WHAT IS DIRT? Old Doctor Cooper, of South Carolina, used to say to his students, "Don't be afraid of a little dirt, young gentlemen. What is dirt? Why nothing at all offensive, when chemically viewed... Everything you call dirt, is worthy your notice as students of chemistry. Analyse it! Analyse it! It will all separate into very clean elements."

"Dirt makes corn, corn makes bread and meat, and that makes a very sweet young lady that I saw one of you kissing last night. So, after all you were kissing dirt."

- from *American Agriculturist*, 1850



Iris ensata Japanese Iris Mix

The largest blooms among the iris, usually 5" across, with huge horizontal beardless falls and small standards, 3–4 flowers per stem.

Sublime blooms in blue, lavender, pink, violet and white. Arching narrow leaves form graceful clumps attractive around ponds or streams. Often takes two years to establish, and is best left undisturbed for a long time. Can be planted in large pots for convenient display during bloom time. Native to Japan and northern China. Prefers moisture during active growth and flowering, mid to late June and possibly into July depending on location. Plant 6–8" apart in slightly acid soil, in full sun or partial shade, with rootstock just below soil level. 36" tall. Z4.

L716A: 3 for \$20.25

L716B: 6 for \$35.00

L716C: 12 for \$63.00

I. germanica Tall Bearded Iris Mix

A hardy perennial and fine cutflower with multiple 3–6" blooms on each flower stalk. Mix contains solid colors or stripes, streaks and stipples on standards and falls. Soft subtle apricot and pinks, bright bold orange, velvety ruby and purples, bold beautiful blues. Strong sword-shaped foliage. "Beards" are soft hairs protruding up from the crest of each fall, often in contrasting colors. Blooming begins in the first real heat of late May or early June. Plant rhizomes horizontally, less than 1" deep, in clusters with new growth facing outward. Full sun and light limey well-drained soil. May take a year to establish before blooming. Vigorous plants, so give them room to spread. Clumps need dividing every 4–5 years. Z4. 3 1/2" plug stock.

L717A: 3 for \$23.50



I. versicolor Northern Blue Flag Northeastern native species carries gorgeous blue-violet flowers with bold purple veining and a white and lemon-yellow blaze. Tall slender blue-green arching lance-shaped leaves offer a strong vertical feature to the landscape. Requires consistently moist soil and prefers 2–4" of shallow standing water. Plant in full sun to part shade. Early. 36" tall. Z2. Bargain prices.

L718A: 3 for \$9.50

L718B: 6 for \$16.50

L718C: 12 for \$29.00

Liatris spicata Blazing Star or Gayfeather

Stiff dense "bottlebrush" magenta-purple flower spikes above fine grass-like foliage. Flowers are good for cutting; leave 1/3 of stem on plant. Blooms from July to September. Tolerates a broad range of growing conditions, but not drought. Plant in full sun, 3" deep, 8–12" apart, in well-drained fertile soil. 20–30" tall. New jumbo size! 2-year-old corms will produce 3–4 stems each. Z3.

L719A: 5 for \$4.25

L719B: 10 for \$7.50

L719C: 25 for \$16.25





Lilium Lily Queen of the perennial border, fabulously showy and surprisingly easy to grow. **Oriental** strains bloom late with fragrant flamboyant blossoms on stalks capable of reaching heights well above 5'. **Tiger Lilies** are prized for their high bud count, unique beauty and exceptional ability to naturalize in the woodland garden.

Excellent as bedding plants or cutflowers, good as specimens or in solid masses. Light shade prolongs summer blooms and keeps the bulbs cool. Mulch in full sun. Plant bulbs 6–8" deep, 6" apart in rich slightly acid well-drained soil. All the lilies are hardy to Zone 3 unless otherwise noted.

L. 'Dizzy' Oriental. White flowers have contrasting radiant rose-red centerlines brushed along the length of each petal and are peppered with rosy-red specks. Fabulous fragrance. Grows 30–34" tall. 1 3/4–2" bulbs.

L720A: 1 for \$2.50
L720B: 3 for \$6.50
L720C: 6 for \$11.50

L. 'Salmon Star' Oriental. Salmon-pink flowers have a vivid coral stripe down the midrib of each petal and are perfectly peppered with dark pink spots. Outward facing blossoms, well suited for border planting. 24–28" tall. 1 3/4–2" bulbs.

L721A: 1 for \$2.50
L721B: 3 for \$6.50
L721C: 6 for \$11.50

L. 'Stargazer' Oriental. Wildly popular for its fragrant deep-rose blossoms with dark spots and narrow white edging. Flowers are huge when plants become well established. 24–30" tall. Bargain prices on 1 3/4–2" bulbs.

L722A: 1 for \$3.75
L722B: 2 for \$6.75
L722C: 3 for \$9.25

L. 'Thalita' Oriental. Rare double blooms are pink with crimson spotting at the center and a sweet spicy intoxicating fragrance. Often referred to as a double Stargazer, with twice the petals and twice the bloom time! Blooms in late July onwards. 36–40" tall. 1 3/4–2" bulbs.

L723A: 1 for \$3.25
L723B: 3 for \$8.25
L723C: 6 for \$14.50

L. superbum Turkscap Lily Native woodland species can bear up to 30 blossoms per plant. The maroon-spotted bright orange petals curve back to touch the stem of the downward facing flower, appearing almost inside-out. The turkscap foliage forms unmistakable wild whorls every few inches along its striking purple stems. Prefers wet meadows and the edges of moist woods, so plant in moist dappled shade, or partial to full sun in a wet area. Flowers July–Sept. 3–7' tall. Z5, maybe Z4 if protected.

L724A: 1 for \$5.25
L724B: 2 for \$8.75
L724C: 3 for \$11.75

L. tigrinum 'Citronelle' Tiger Lily Robust variety produces scads of luminous lemon-yellow flowers with recurved petals generously flecked with dark purple dots. Prominent rusty-red anthers produce a beautiful mahogany pollen. Tiger lilies are distinguished by purplish-black bulbils in the leaf axils along the stem. When the plant is happy, the bulbils will drop and sprout baby lilies by the score. 2–5' tall. Z2. 1 1/2–1 3/4" bulbs.

L725A: 2 for \$4.00
L725B: 6 for \$10.50
L725C: 12 for \$18.75

Lily Leaf Beetle Got You on the Run?

It takes less than 10 minutes a day to have gorgeous organic lilies. Each day during the first part of the growing season inspect the lily foliage and pick off the first flush of adult beetles and squish them or drop them into soapy water. You can't miss them—they look like gorgeous bright red jewels. Also look for dull orange eggs on the undersides of the leaves. Smash them, too! If you do this faithfully early in the growing season, you'll give your lilies a chance to grow big enough to withstand the relatively minor nibbling from the few rogue beetles you missed.

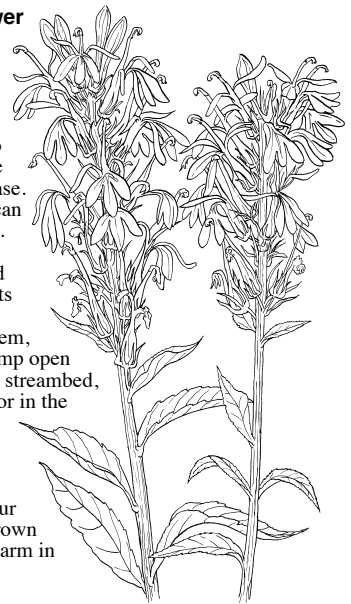
Beetles will often drop to the ground as you reach for them and disappear into the soil. If you lay black mulch fabric down when you plant your lilies, the beetles will land on it and then there will be no escaping your deadly grasp!

If you'd rather not smash bugs with your morning tea, try mixing a 1:8 dilution of Dr. Bronner's Peppermint Soap with water. Spray the plants and be sure to get the underside of the leaves. Many Fedco customers have reported success with this method, and I have found success when combined with quick daily vigilance.

Lobelia cardinalis Cardinal Flower

In early spring this gorgeous North American native forms deep green rosettes, which produce tall green to burgundy-tinted stems with alternate lance-shaped leaves. Long tubular scarlet flower spikes are irresistible to hummingbirds and butterflies because each tube has a pool of nectar at its base. Habitat loss and thoughtless picking can spell disaster for this plant in the wild. Considered a short-lived perennial, Lobelia will naturalize beautifully and reseed year after year, depending on its seeds for survival. Healthy plants can produce several thousand seeds per stem, which will germinate well only on damp open ground. Plant along the riverbank and streambed, edges of bog, in the perennial border or in the meadow. Once established it is absolutely stunning. Best planted in light shade to full sun in *consistently moist soil*. Mulch to reduce weed competition in the first year. 4' tall. Our stock is MOFGA-certified organic, grown by the conscientious folks at Ripley Farm in Dover-Foxcroft, Z3. **ME Grown.**

L726A: 1 for \$7.25
L726B: 2 for \$12.50
L726C: 3 for \$16.75



Nepeta faassenii 'Walker's Low' Catmint Aromatic grey-green foliage with long arching stems topped by lavender-blue flowers provides an eye-catching show of color nearly all summer. Creates a strong dependable low-growing hedge along any garden path.

Flowers attract bees, butterflies, hummingbirds and human admiration. 2007 Perennial Plant of the Year. Cut back in midsummer to encourage steady blooms. Likes hot and dry, but will grow in any well-drained soil, full sun to part shade. 2–3' tall despite its name. Z3.

L727A: 1 for \$6.00
L727B: 3 for \$15.25
L727C: 6 for \$28.00



Plant-stock definitions for your learning pleasure:

Bulb: a rounded underground storage organ present in some plants, notably those of the lily family, consisting of a short stem, surrounded by fleshy scale leaves or leaf bases, that rests over winter.

Corm: a rounded underground storage organ present in plants such as crocuses, gladioli, and cyclamens, consisting of a swollen stem base covered with scale leaves.

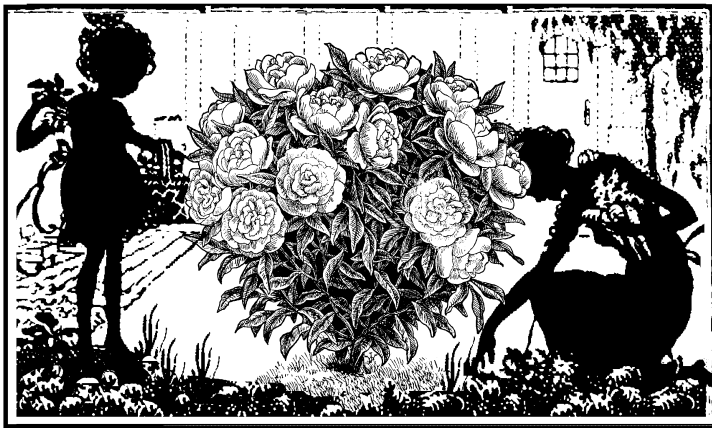
Rhizome: a continuously growing horizontal underground stem that puts out lateral shoots and adventitious roots at intervals.

Root: the part of a plant that attaches it to the ground or to a support, typically underground, conveying water and nourishment to the rest of the plant via numerous branches and fibers.

Stolon: 1. a creeping horizontal plant stem or runner that takes root at points along its length to form new plants.

2. an arching stem of a plant that roots at the tip to form a new plant, as in the bramble.

—from *The New Oxford American Dictionary*



***Paeonia lactiflora* Garden Peony or Chinese Peony** Red shoots appear in spring and form a bushy clump, about 3x3', of lustrous dark green deeply lobed foliage. Fat spherical buds on sturdy stems above the foliage gradually open into large beautiful flowers from late spring to early summer. (Ants may help the buds to open so don't discourage their presence.) May take 3 to 5 years to establish before blooming and resents being disturbed. Wait several years, until the plants have many stems (therefore many eyes) before attempting to divide. Z3.

P. I. 'Buckeye Belle' Deep velvety cranberry red. Broad outer petals form an unmistakable rounded cup that cradles a subtle mound of red petaloids sprinkled with golden stamens. Strong stems make this an excellent outflower. One of my favorites! Early season. 34" tall.

L728A: 1 for \$12.50

L728B: 2 for \$21.25

L728C: 3 for \$28.50

P. I. 'Celebrity' A triple-decker bomb-type with a base of silky raspberry-pink petals topped by finely cut light pink inner petals out of which explode even more raspberry-pink petals. The effect is jaw-dropping and completely over-the-top! Mid to late season. 24–36" tall.

L729A: 1 for \$20.25

L729B: 2 for \$35.00

L729C: 3 for \$47.00

P. I. 'Coral Sunset' Intense sunset coral with rose overtones and fluffy golden stamens. Semi-double. Light fragrance and long vase life. Early season. 28" tall.

L730A: 1 for \$10.50

L730B: 2 for \$18.00

L730C: 3 for \$24.00

P. I. 'Karl Rosenfield' Dark velvety crimson inclining to purple. A marvelous double flower of rare beauty, clear and brilliant, immense in size, globular and solidly built. Blooms in clusters on strong erect stems. A magnificent, showy and attractive variety worth traveling miles to see when in full bloom. Midseason. 28–33" tall. (2–3-eye stock.)

L731A: 1 for \$10.50

L731B: 2 for \$18.00

L731C: 3 for \$24.00

P. I. 'Raspberry Sundae' Giant delectable 6" blossoms feature fluffy mounds of pink-blushed creamy vanilla petals circled at the base by a pastel-pink guard. Delightful fragrance and delicate beauty. Early to midseason. 36" tall.

L732A: 1 for \$13.00

L732B: 2 for \$22.50

L732C: 3 for \$30.00

Garden Peonies Plant 2–3' apart with the eyes (where the growth shoots meet the root) no more than 1–1½" below the surface in well-drained soil, full sun to partial shade. Peonies are extremely long-lived so amend the soil richly when you plant. Compost, very well-rotted manure, bone meal and azomite are all recommended. After that they need only a bit of weeding and feeding to flourish.

Mature plants often need staking or tying because flowers and buds can be quite heavy. For big plants, I've been using a chicken-wire method that Mary Fowler recommended. Cut a flat circle of chicken wire 2 or 3' in diameter and place it on the shoots when they are 8–10" tall. The shoots lift the wire, grow through it and use it for an invisible support.

Remove spent flowers after blooming, then cut dead foliage to near ground level in fall. Plant along the driveway; a heavy snowbank doesn't bother them.

In 1918, at a time when you could purchase 1000 cabbage plants for \$2.00—the average going rate for a single peony plant was between \$2 and \$20 per dozen! The Karl Rosenfield peony was a new American addition to the world of so called "red" peonies, the majority of which tended toward magenta. Karl Rosenfield claimed to be pure crimson and was a color so sought after that some people were willing and able to pay \$5 for one plant alone—while the rest of America could only afford to make sauerkraut.

***Paeonia suffruticosa* Japanese Tree Peony or Moutan**

is expensive, but as garden writer Peter Coats says, "It is worthwhile to sell everything one possesses to buy peonies, and to dig up everything else in the garden to make room for them." Extravagantly big flowers with loose satiny petals bloom in early June before garden peony. Full sun promotes fastest growth but also fades the flowers, which do best in dappled shade. 48–60" tall. One-year plants may need 2–3 years to mature before blooming begins. Z4.

P. s. 'High Noon' Fragrant semi-double bright clear yellow blossoms span 6–9" across with red flares in the centers.

L733A: 1 for \$33.00

L733B: 2 for \$57.25

L733C: 3 for \$77.00

P. s. 'Kinkaku' Fully double blooms of yellow petals with orange edges, create an overall orange effect.

L734A: 1 for \$38.25

L734B: 2 for \$67.50

L734C: 3 for \$90.00

P. s. Purple Tree Peony Profusion of semi-double deep pink to burgundy blooms with yellow stamens.

L735A: 1 for \$36.75

L735B: 2 for \$63.75

L735C: 3 for \$86.00



***Papaver orientale* Oriental Poppy** Breathtaking clump-forming perennials with finely cut bristly frosty-green leaves and shimmering crepe-paper blossoms that give way to unique signature seedpods that are an essential component in late-season bouquets and dried arrangements. The entire plant goes summer-dormant—don't be alarmed when the leaves turn brown in early summer and disappear almost entirely by August. Basal mats of new leaves will appear in the fall. Oriental poppies form a taproot, so loosen soil deeply before planting so roots can reach the cool soil with ease. Requires full to part sun and neutral well-drained soil. Over-watering, particularly during dormancy, is the most common cause of failure. Winter mulch is recommended to prevent heaving. Z3.

P. o. 'Little Patty's Plum' Dusky damson-plum-colored blossoms. A short version of the original Patty's Plum Poppy, a compost-pile surprise discovered in the 1990s by gardener Sandra Pope. Named for plantswoman Patricia Marrow, owner of the famous Kingsdon Nursery in Somerset, England. 20" tall.

L736A: 1 for \$6.50

L736B: 2 for \$11.00

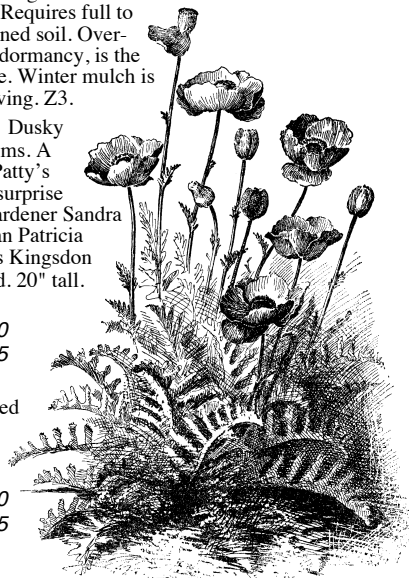
L736C: 3 for \$14.75

P. o. 'Turkenlouis' A fiery sunburst of orangey-red fringed and ruffled blossoms. 24–36" tall.

L737A: 1 for \$6.50

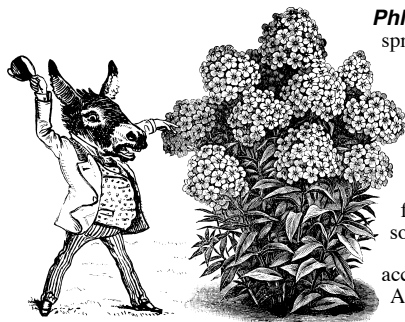
L737B: 2 for \$11.00

L737C: 3 for \$14.75



Perovskia atriplicifolia Russian Sage Blooms in midsummer with elegant slender spires of lavender-blue tubular flowers. Finely divided grey-green leaves are aromatic when crushed. Perovskia has one of the longest bloom times of any blue-flowered plant. Semi-woody shrub emerges slowly in spring; cut back after frost. Tolerates drought, loves heat and full sun, can't bear standing water. Likes to spread out once it gets established. Plant 24–36" apart. Grows 36–48" tall. I suspect that Zone 4 reports of winterkill are from poor drainage rather than cold, so a cautious Z4.

L738A: 1 for \$6.50
L738B: 3 for \$16.75
L738C: 6 for \$30.00



Phlox amplifolia 'Goliath' Giant spreading clusters of fragrant lilac-purple flowers with starry white spokes and dark eyes. The flower heads are twice the size of any phlox we've seen! Produces showy long-blooming flowers in mid to late summer when so many blooms are fading, and satiny panicles when so many blooms are coarse. Wonderful color and fragrance for accents, border or naturalized area. Attracts butterflies and hummingbirds. Essential component of late-summer wedding bouquets.

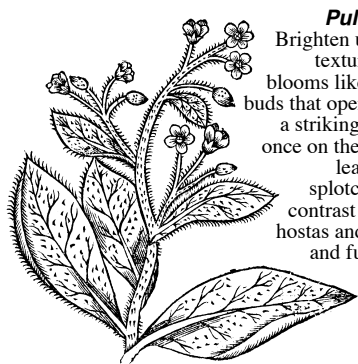
Extend flowering season by watering and prompt deadheading. Goliath demonstrates excellent mildew resistance. Benefits from regular sidedressing and prefers humus-rich soil that stays cool and moist in summer. Plant 2' apart, full sun to partial shade. 26–30" tall. Z3.

L739A: 1 for \$5.75
L739B: 2 for \$10.00
L739C: 3 for \$13.00

Polygonatum biflorum Solomon's Seal

Clumps of 3' long graceful arching stems with long narrow alternate leaves. Greenish-white bell-shaped tubular flowers dangle in rows along the stems in late spring and become small round blue-black fruits in early fall. Native americans used the root tea for ailments of stomach and lung and for general debility, and used washes from the root for external injuries. Western herbalists use the root as a connective tissue anti-inflammatory and to strengthen weak joints and ligaments. Don't confuse it with False Solomon's Seal, which has a plume-like flower at the end of the stem. As herbalist Jim McDonald points out, in the woods "there's always more False Solomon's Seal than True, and this makes its ecological status an important consideration, especially when harvesting." Therefore, it's best to grow your own patch for making herbal remedies. Solomon's Seal is ideal for the shade or woodland garden. Z3.

L740A: 3 for \$6.50
L740B: 6 for \$11.25
L740C: 12 for \$20.00



Pulmonaria 'Mrs. Moon' Lungwort

Brighten up your shade garden with this bold-textured woodland perennial. Pulmonaria blooms like a chameleon, with periwinkle-blue buds that open to charming pink flowers, creating a striking effect with both colors appearing at once on the same plant. Large ovate slate-green leaves are dressed in vivid silver-white splotches. Presents a brilliant early season contrast to blooming daffodils and emerging hostas and ferns. Plant 1–2' apart in moist soil and full to partial shade. Grows 9–12" tall with a slow but steady spread of up to 2' wide. Z3.

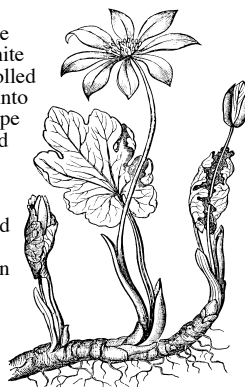
L741A: 1 for \$4.00
L741B: 3 for \$10.00
L741C: 6 for \$17.50

Pulsatilla vulgaris 'Rubra' Pasque Flower Frosty-green fuzzy flower stems often emerge when patches of snow are still on the ground. Soon after, large open bell-shaped dusky burgundy flowers with golden-yellow stamens bloom as the finely cut ferny foliage begins to form. At bloom time flower stems are typically 4–5" tall but continue to grow after blooms have passed, eventually reaching heights of 9–12", with unique spherical clusters of feathery silvery seedheads. Excellent choice for rock gardens and the front of the border. Will develop a deep extensive root system under the right conditions. Plant 10" apart in full sun to part shade in rich *seriously well-drained* soil. Prefers not to be disturbed once established. Z4. 3 1/2" plug stock.

L742A: 1 for \$3.25
L742B: 2 for \$5.50
L742C: 3 for \$7.25

Sanguinaria canadensis Bloodroot Native spring **ephemeral**. Enchanting solitary 1 1/2" white flowers with 8–12 petals emerge from tightly rolled leaves. Low-growing grey-green leaves unfurl into an unmistakable lobed and scalloped palm shape spanning 4–8" across. Flowers open at night and close during the day. Forms a colony over time and is worth the wait—bloodroot is one of the most handsome woodland plants in existence. Best planted en masse in moist rich well-drained shaded woodland soil. Spreading underground rhizomes exude a somewhat caustic rusty-brown sap when cut. *Wash hands after handling.* Z3.

L743A: 3 for \$11.00
L743B: 6 for \$18.50
L743C: 12 for \$30.00



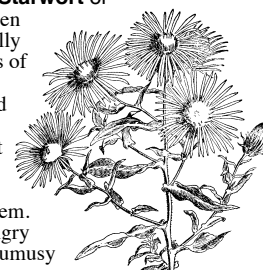
Sisyrinchium angustifolium 'Lucerne'

Blue-eyed Grass Deep blue-violet 6-petaled star-shaped flowers with golden-yellow eyes rise above fine tufts of grassy semi-evergreen iris-like foliage. *Sisyrinchium* is a member of the iris family, with tiny clump-forming rhizomatous roots. The blossoms transform into dangling three-celled spherical seed-pods that release tiny black seeds. Over time, through both methods of reproduction, thick stands will develop. Divide every 2–3 years to encourage good looks and vigor. Fabulous at the front of the border, in rock gardens or planted along the tree line, in damp open woods, slopes and along stream banks. Tolerates light shade but performs best when planted in full sun, in rich moist, yet well-drained, soil. 8–10" tall. Z4. Nursery propagated plug stock.

L744A: 1 for \$6.50
L744B: 3 for \$16.75
L744C: 6 for \$30.00

Symphyotrichum novae-angliae Aster, Starwort or Frost Flower

The New World asters have been moved out of the Aster genus and are technically now *Symphyotrichum*. Freely branching sprays of brightly colored flowers decorate the autumn landscape throughout the Northeast. Asters add hardy grace to the back of the wild border and will naturalize on banks or in the meadow. Cut back slightly in early to mid June to induce an abundance of 1 1/2–2" rayed blooms from late August into October. Deer usually don't eat them. Provides a late-season source of nectar for hungry pollinators. Plant 12–18" apart in light moist humusy soil in full sun with good air circulation. Z4. (Nursery-propagated plug stock.)



S. n.-a. New England Aster North American native. Blooms range from blue-purple to lavender-pink with yellow eyes. Reaches grand heights of 4–6' tall!

L745A: 1 for \$4.25
L745B: 3 for \$10.50
L745C: 6 for \$18.25

S. n.-a. 'Vibrant Dome' Hot pink flowers with golden-yellow centers. Compact mounding habit. Exhibits excellent mildew resistance. 15–20" tall.

L746A: 1 for \$4.25
L746B: 3 for \$10.50
L746C: 6 for \$18.25

Tanacetum vulgare Tansy People either love or hate this wild and wily beauty. There is no doubt that tansy is a useful and beautiful plant. Tall and stately with aromatic feathery tooth-edged foliage and bold clusters of bright yellow button-like flowers that put on a show from mid-July to late fall. Adds a vibrant note to dried arrangements. High camphor content deters orchard pests. Traditionally used in the home to repel ants, fleas, flies and mice. Tansy accumulates potassium from the soil making it a valuable addition to the compost heap. *Can be invasive, and is best planted in heavy clay soils* so the underground rhizomes will spread more slowly than in light well-drained conditions. Snip off the flower heads for further control of its vigorous spreading nature. Plant 2' apart in full sun in heavy clay soil. Grows 4–5' tall. **ME Grown.** We cannot ship to MT, SD, WA or WI. *Pregnant women avoid.*

L747A: 1 for \$5.75
L747B: 3 for \$15.00
L747C: 6 for \$25.00



When Planting Comfrey & Tansy & Nettle
 Choose a site that will never see a rototiller or you will live to regret it!

Why is Fedco selling weeds? Tansy, comfrey, valerian, nettles, Rugosa, blackberry, kiwi, horseradish, groundnuts. Some native, some not. Yep, they can become nuisances if we aren't careful. We weigh the pros and cons of each plant and aim to provide info that will help all of us to garden mindfully. Sometimes we learn something new in our evaluations and decide to take a plant out of the catalog. We hold on to others because we think they are amazing assets to our gardens, and with thoughtfulness they can be cultivated and contained.

Thymus praecox 'Coccineus' Red Creeping Thyme Dense flat mats of dark fragrant evergreen leaves are quickly blanketed in outstanding magenta-red flowers. One of the most rewarding groundcovers I've ever planted—each year it fills in the blank spots between the chives and sage in my herb beds and is now beginning to politely root itself into the garden pathways. The bees can't get enough of it and neither can I. Plant in full sun, in moist well-drained soil. Grows 2–4" tall.

L748A: 1 for \$6.50

L748B: 2 for \$11.25

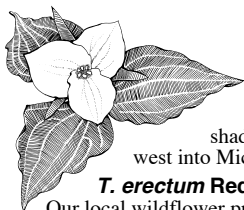
L748C: 3 for \$27.00

Tradescantia x andersoniana 'Concord Grape' Spiderwort Grows in clumps with blue-green grass-like foliage and stems topped with spider-like clusters of buds that open to pretty 3-petaled triangular rich purple flowers with delicate yellow stamens. Blooms for 8 weeks from late spring throughout the summer. The parent species are hardy North American natives adapted to moist woodland edges, meadows and prairies. Perfect for the woodland garden as it thrives under trees; also attractive by a pond or stream. Part to full shade. Will tolerate damp areas. 15–18" tall. Z3.

L749A: 3 for \$9.50

L749B: 6 for \$16.25

L749C: 12 for \$29.00



Trillium Classic native wildflower will gradually build a quiet woodland colony if allowed to grow in peace. Spreads by seed and underground rhizomes. Grows in moist rich woods, full or part shade, from Nova Scotia to the mountains of Georgia, west into Michigan. 8–18" tall. All are nursery propagated. Z4.

T. erectum Red Trillium, Stinking Benjamin or Wakerobin

Our local wildflower preserve features huge patches of these velvety-soft maroon flowers. A spectacular and pleasing sight.

L750A: 3 for \$11.00

L750B: 6 for \$18.50

L750C: 12 for \$30.00

T. grandiflorum Great White Trillium or Wood Lily Large pure white flowers are perched on a pedicel (stalk) above the leaf whorl.

L751A: 3 for \$11.00

L751B: 6 for \$18.50

L751C: 12 for \$30.00

T. luteum Yellow Trillium Tiny upright lemon-yellow flower petals sit on top of multicolored green sessile leaves mottled with silver.

L752A: 3 for \$11.00

L752B: 6 for \$18.50

L752C: 12 for \$30.00

Trollius x cultorum 'Orange Crest' displays double flowering 2" globe-shaped glowing tangerine flowers with a warm and deeper shade of orange at the center. Blooms appeared at the peak of my Zone 4 delphinium bloom and the color combination was jaw-dropping. Forms an attractive mound of palmately lobed deeply divided foliage. Performs well at the water's edge. Plant 8–12" apart in moist heavy soil, full sun to part shade. 24" tall. Z3.

L753A: 1 for \$5.25

L753B: 2 for \$8.75

L753C: 3 for \$11.75



Herbaceous Medicinals

The following plants have long histories of traditional medicinal use. It's up to you to educate yourself about the safety and efficacy of using plants for medicinal purposes. The statements in our catalog regarding traditional medicinal uses of plants have not been evaluated by the FDA. The plants we sell are not intended to diagnose, treat, cure, or prevent any disease.

Plants may take a year or more to establish before they flower; roots often take several years to reach harvestable maturity. The organic listings are all certified by MOFGA.



Achillea millefolium Yarrow, named for its use by Achilles to stanch battle wounds, has a centuries-old tradition of use as an external styptic. A natural anti-inflammatory, yarrow has been used by women to regulate the menstrual cycle, reducing heavy bleeding and easing period pain. Yarrow is often used in combination with other herbs as a cold remedy and to reduce fever. Infusion of flowering tops stimulates healthy digestion and improves circulation. White flowers bloom June through September. An excellent orchard companion and a beautiful addition to the perennial border, meadow, herb or moon garden. Our certified-organic stock is grown at Ripley Farm in Dover-Foxcroft. See p. 55 for an ornamental strawberry-red yarrow. Z3. **ME Grown.**

L754A: 1 for \$6.50

L754B: 2 for \$11.25

L754C: 3 for \$15.00

Actaea racemosa Black Cohosh or Black Snakeroot Formerly known as *Cimicifuga racemosa*. Provides the ultimate backdrop for the lightly shaded woodland garden. From late July into August, long arching racemes of creamy white and gold serpentine flower spikes soar 6–10' over a 3–4' mound of fine-textured green compound foliage. Diuretic and anti-inflammatory. Anti-spasmodic for cramps, pains, cramped nerves and emotions, included in many premenstrual and perimenopausal formulas. Roots contain salicylic acid. *Pregnant women avoid.* Prefers part shade, but tolerates full sun in deep moist soil. Grows well in boggy spots. Develops large clumps of rootstock so give it room to spread. Plant 3' apart in rich moist soil, part sun, part shade. Our stock is sustainably grown by Joanna Linden at Shooting Star Farm in Canaan. Z3. **ME Grown.**

L755A: 1 for \$7.50

L755B: 2 for \$13.75

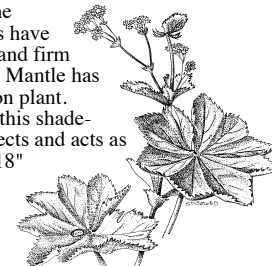
L755C: 3 for \$18.00

Alchemilla mollis Lady's Mantle Enchanting tiny fans of leaves emerge in early spring and unfold into a mound of rounded fan-creased silvery grey-green foliage. Sprays of tiny yellow-green stars bloom on 15" tall stalks above the foliage. Most herbals list the medicinal variety as *A. vulgaris*; ornamental growers list this very similar species as *A. mollis* in this botanically bewildering genus. *A. vulgaris* tends toward a looser more spreading habit than the tighter more upright *A. mollis*. Both varieties have traditionally been used as a poultice to tone and firm breast tissue and to promote fertility. Lady's Mantle has a new claim to fame as an orchard companion plant. When planted at the base of old apple trees, this shade-loving plant attracts hordes of beneficial insects and acts as a beautiful low spreading groundcover. 12–18" tall. Z3.

L756A: 1 for \$3.75

L756B: 3 for \$8.50

L756C: 6 for \$15.50



Orchard Companion Collection

Our collection includes one each of the following 6 plants, each individually packaged and labeled. If one is unavailable, we'll substitute a plant of similar benefit to the orchard. **ME Grown.**

Achillea millefolium Yarrow Living mulch and native pollinator plant. Rich in copper, nitrogen and phosphorus. Aromatic pest confuser with bitter aroma. Excellent addition to compost piles. See full description at upper right.

Baptisia australis Blue False Indigo Nitrogen-fixing legume and native pollinator plant. See full description on p. 56.

Eupatorium perfoliatum Boneset Beneficial insect attractor, native pollinator plant. Beautiful medicinal native plant found in intact meadow ecosystems (which are all too rare these days). Adaptable to wet or dry soils, naturalizes in most locations.

Hyssopus officinalis Hyssop Aromatic pest confuser with bitter aroma, long used as a companion plant in gardens and orchards. See full description on p. 64.

Monarda fistulosa Wild Bergamot or Bee Balm Living mulch. Native pollinator plant. See full description on p. 65.

Symphytum x uplandicum 'Bocking 14' Russian Comfrey Beneficial insect attractor, mineral accumulator and living mulch. Rich in silica, nitrogen, magnesium, calcium, potassium and iron. Use as mulch or turn the leaf into compost tea for your garden; makes a mineral-rich foliar spray. Nearly impossible to eradicate: plant it where you want it forever, 4–15' from tree trunks.

L778A: 1 for \$30.00

Companion plants encourage natural processes that benefit the overall health and vitality of fruit trees. This means less work lugging around sprayers, buying fertilizer, spreading compost and worrying about pollination.

Beneficial Insect Attractors contain nectar sought by predatory insects like braconid wasps, syrphid fly and lacewings that feed on fruit tree pests.

Mineral Accumulators have long taproots that are thought to bring up minerals from deep subsoil. Cut foliage and mulch around trees throughout the season to create nutrient-rich soil.

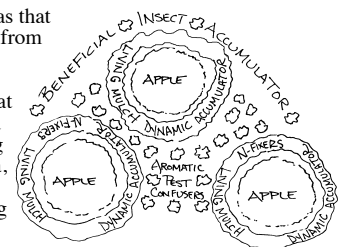
Living Mulches produce large quantities of organic matter that can be cut back to decompose around tree bases, enriching the soil.

Native Pollinator Plants are native to North America and attract native pollinators.

Nitrogen-Fixers transfer nitrogen from the air to the soil where it can be absorbed by tree roots.

Pest Confusers have bitter aromas that confuse insect pests and deter them from eating fruit.

We're offering a collection of 6 great orchard companions, but you'll find many other perennials in the catalog that belong under your trees. Arnica, catmint, echinacea, lady's mantle, tansy and creeping thyme are among our favorite companions.



***Althaea officinalis* Marshmallow** Small delicate lavender-white flowers with darker lavender stamens appear up and down the stalks of this beautiful towering medicinal plant. I've been drawn to marshmallow ever since I watched herbalist Deb Soule rub its soft velvet leaf against her cheek and explain how much the ruby-throated hummingbird appreciates the nectar of marshmallow flowers. The leaf, flower and mucilaginous roots are traditionally used to soothe the mucous membrane linings of the lungs and digestive tract, and to calm the lining of the urinary tract. Leaf is best used fresh for tea, and the dried roots are best when soaked overnight in cool water for tea. Harvest 4-year-old roots for medicinal use. Wonderful in a hedgerow and magnificent planted with black cohosh as they often blossom together in late July and into August. Readily self-sows. Plant 1-2' apart in light moist soil, part sun, part shade. 5-8' tall. Our certified-organic stock is grown at Ripley Farm. Z4. **ME Grown.**

L757A: 1 for \$7.25

L757B: 2 for \$12.50

L757C: 3 for \$16.75

***Arnica chamissonis* Spreading groundcover** with bright yellow daisy-like flowers used externally in oils and salves to treat bruises, sprains and inflammation. Never take internally except in homeopathic doses. In the right conditions a few plants will develop into a dense long-lived patch. Blooms in July. Grows successfully in our climate and is a generally accepted substitute for *A. montana*. Plant in full sun 1' apart in moist well-drained soil. Lauren Cormier sustainably grew these North American natives. Z3. **ME Grown.**

L758A: 1 for \$7.25

L758B: 2 for \$12.50

L758C: 3 for \$16.75

***Artemisia absinthium* Wormwood**

Aromatic bitter herb native to Europe. Traditionally used as a digestive stimulant, mild antidepressant, potent insect repellent, and treatment for intestinal parasites. Beautiful branching shrub-like woody plant with tall stiff stems and alternate finely cut silvery-grey-green leaves covered with silken white hairs. Useful as an orchard companion—foliage has a strong sage-like scent and acts as an aromatic pest confuser. Adds a frosty color to the back of a perennial border. Notorious as the source of absinthe, an addictive and controversial drink, wildly popular in the 19th c. Legal contention swirls around the thujone content in drinks and herbal preparations flavored with wormwood essential oil, which is known to be safe only in minute doses and potentially toxic in excess. Deadhead to prevent unwanted self-seeding.

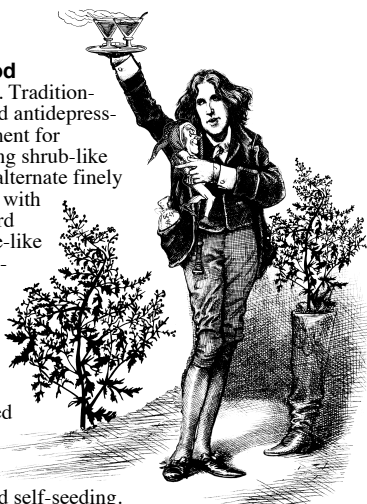
Thrives in full sun and poor dry soils. Requires excellent drainage. Grows 3' tall. *Cannot ship to CO, ND, or WA.*

L759A: 1 for \$7.25

L759B: 2 for \$12.50

L759C: 3 for \$16.75

Useful and interesting website:
wormwoodsociety.org



***Asarum canadense* Canadian Wild Ginger** Heart-shaped leaves up to 7" wide will spread into a beautiful groundcover. Leaves are large and slightly fuzzy, not small and glossy like the European species. Aromatic roots used like other gingers for their warming qualities and for soothing indigestion, coughs, colds and motion sickness. Grown for roots and foliage. The small reddish-brown urn-shaped flowers grow near the soil surface or in the surface leaf mold to be pollinated by crawling insects. Flowers are fun to search for but won't decorate your landscape. Requires shade and moist rich woodland soil. 6-12" tall. Z3.

L760A: 3 for \$7.50

L760B: 6 for \$12.75

L760C: 12 for \$22.50

It was a queer little garden and puzzling to a stranger, the few flowers being put at a disadvantage by so much greenery; but the discovery was soon made that Mrs. Todd was an ardent lover of herbs, both wild and tame, and the sea-breezes blew into the low end-window of the house laden with not only sweet-brier and sweet-mary, but balm and sage and borage and mint, wormwood and southernwood. If Mrs. Todd had occasion to step into the far corner of her herb plot, she trod heavily upon thyme, and made its fragrant presence known with all the rest. Being a very large person, her full skirts brushed and bent almost every slender stalk that her feet missed. You could always tell when she was stepping about there, even when you were half awake in the morning, and learned to know, in the course of a few weeks' experience, in exactly which corner of the garden she might be.

- from *The Country of the Pointed Firs* by Sarah Orne Jewett, 1896

***Astragalus membranaceus* Chinese Milk Vetch** Root is *huang qi* in China. Deep-rooted leguminous plant forms an upright bush with many stems, each thickly covered with tiny pinnate leaves and small arching racemes bearing rows of whitish-yellow flowers. This important Chinese medicinal, when used over many months, is known to rebuild the immune system while combating exhaustion. Long-term tonic use is believed to increase stamina and improve resistance to cold temperatures. Harvest 4- to 6-year-old roots in fall. Plant in full sun, 12" apart in deep gravelly well-drained soil. 18-36" tall. Our certified-organic stock is grown at Ripley Farm. Z4. **ME Grown.**

L761A: 1 for \$8.75

L761B: 2 for \$15.00

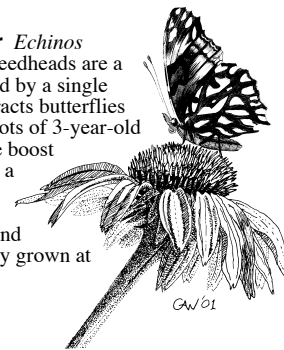
L761C: 3 for \$20.25

***Echinacea purpurea* Purple Coneflower** *Echinops* means 'spiny' and the coneflower's spiny seedheads are a beautiful coppery yellow-brown, surrounded by a single row of reflexed lavender-purple petals. Attracts butterflies and other beneficial insects. Tincture the roots of 3-year-old plants for a remedy that gives an immediate boost to the immune system; use it when you feel a cold or flu coming on. Tolerates wind, heat and drought once established. Will reseed abundantly. Plant 20-30" apart in full sun and light sandy soil. Grows 3-5' tall. Sustainably grown at Shooting Star Farm. Z3. **ME Grown.**

L762A: 1 for \$7.25

L762B: 2 for \$12.50

L762C: 3 for \$16.75



***Fragaria vesca* Alpine Strawberry** Great for edging walkway, bed or border; spreads by runners that root as they go. Familiar compound leaves and white flowers are followed by petite juicy sweet rich red berries from late spring till fall. Leaves are considered blood purifying and diuretic in European folk tradition. Plant in full sun, 8-12" apart in slightly acid moist well-drained soil. 4-8" tall. Our stock is certified organic, grown at Ripley Farm in Dover-Foxcroft. Z3. **ME Grown.**

L763A: 1 for \$6.50

L763B: 3 for \$16.75

L763C: 6 for \$30.00

***Glycyrrhiza glabra* Licorice** Sweet and soothing roots contain glycosides similar to the body's own natural steroids. Beneficial for revitalizing adrenal glands, good for colds and bronchitis, reduces throat irritation, yet acts as an expectorant and anti-spasmodic. Adds sweetness, harmony and palatability to nearly every herbal combination. Give it lots of room and keep it weeded so it can create the roots and runners you want. Roots penetrate deeply and take complete possession of the soil. Runners sometimes travel great distances before sending up a shoot—if the soil is loose you can pull up errant runners, coiling them like rope to hang in wreaths above the woodstove, convenient for winter teas. Leguminous plant fixes nitrogen in the soil. You can plant small vegetables like onions, lettuce and beans in the intervening spaces during the first and second year of growth. Prefers sandy well-drained soil. Mulch to prevent heaving. Roots attain harvestable size in 3 to 4 years. Grows 3-4' tall. Our stock is certified organic, grown at Ripley Farm. Z4. **ME Grown.**

L764A: 1 for \$7.00

L764B: 2 for \$12.50

L764C: 3 for \$16.50

***Hydrastis canadensis* Goldenseal** Native to Eastern hardwood forests. Plants have upright stalks, typically forked into two stems, each with a deeply incised dark green leaf with 5-7 lobes and toothed edges. A unique white flower with a dozen or so pistils appears above the foliage in spring and matures into a raspberry-shaped red berry that typically contains one or two shiny black seeds. Requires moist cool woodland soils and deep shade. Harvest root after seeds ripen in fall. Powerful medicinal is at risk of over-harvesting in the wild. 6-12" tall. Nursery propagated. Z3-6.

L765A: 3 for \$16.25

L765B: 6 for \$28.00

L765C: 12 for \$50.00

***Hyssopus officinalis* Hyssop** Vivid blue-violet double-lipped flowers on spikes blossom from June through September. Infusions of the pleasantly skunky dark green leaves and flowering tops are traditionally used as tea or made into syrup to ease digestion and treat chronic respiratory infections after they have peaked. Hyssop increases the production of liquid mucus and acts as an expectorant. Thrives in dry soil, useful on slopes and any sunny difficult place. Makes a beautiful hedge that will draw bees from far and wide. 12-20" tall. Plant 12-24" apart in poor soil, full sun to light shade. Sustainably grown by Lauren Cormier. Z3. *Limited supply—get it while you can!* **ME Grown.**

L766A: 1 for \$7.25

L766B: 2 for \$12.50

L766C: 3 for \$16.75



Lavandula angustifolia Lavender

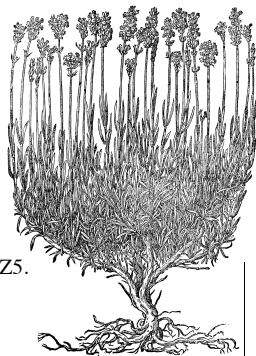
Sweet-scented flower spikes extend above aromatic silvery-green lanceolate leaves. Blooms all summer. Makes a nice border, rockery, slope or specimen plant. Both of this year's offerings have a compact habit that lends itself to edging walkways. Traditionally used to calm nervous excitability and relieve muscle tension. Plant 12–24" apart in full sun, in moist well-drained soil. Mulch to prevent winter heaving.

L. a. 'Hidcote' Famous for its deep dark purple flowers held above silvery-grey foliage. 16–18" tall. Z5.

L767A: 1 for \$6.50
L767B: 2 for \$11.25
L767C: 3 for \$15.00

L. a. 'Munstead' Considered the hardiest lavender. Light lavender flowers. 16–18" tall. Z4.

L768A: 1 for \$6.50
L768B: 2 for \$11.25
L768C: 3 for \$15.00



Levisticum officinale Lovage Beneficial insect attractor. Glossy green leaves have a strong celery taste and can be used to flavor soups, stews and casseroles. Looks like a giant celery plant with toothed compound leaves, greenish-yellow umbelliferous flowers and small oval seeds. Crush seeds and add to bread and pastries; candy the stems and roots into a sweet medicinal syrup that is said to restore the appetite and revive the love of life. Second-year plants are best for drying. Formerly used to mask the bitter herbs in medicinal concoctions. Makes a dramatic architectural element in a decorative deliciously scented border. Plant full sun to part shade in rich moist well-drained soil. Grows 6' tall. Z3. *Pregnant women avoid.*

L769A: 1 for \$7.25
L769B: 2 for \$12.50
L769C: 3 for \$16.75

Monarda Bee Balm or Bergamot or Oswego Tea is loved by bees, butterflies and is one of the best hummingbird magnets nature has to offer! Wild and wily flowers form with tubular petals on pincushion heads borne above colorful bracts in July and August. Aromatic foliage. Good for borders, for wet areas and for cutting. Infusion of the aerial parts can be used to improve digestion by reducing flatulence. Delicious used as tea or added to meat and bean dishes. Plant crowns 16–20" apart in light shade in moist soil. Thrives in full sun if given adequate moisture or mulched with leaf mold; tolerates most conditions. All of this year's stock is MOFGA-certified organic, grown at Ripley Farm. Z3. **ME Grown.**

M. didyma 'Panorama Reds' Fabulous blooms in a diverse range of red shades destined to attract scads of butterflies and hummingbirds for your cats and kids to chase in vain. 3–4' tall.

L770A: 1 for \$6.50
L770B: 3 for \$17.00
L770C: 6 for \$30.00

M. fistulosa Wild Bergamot Our native wildflower species with aromatic lavender blossoms. This is the variety most commonly used for medicinal purposes. 2–4' tall.

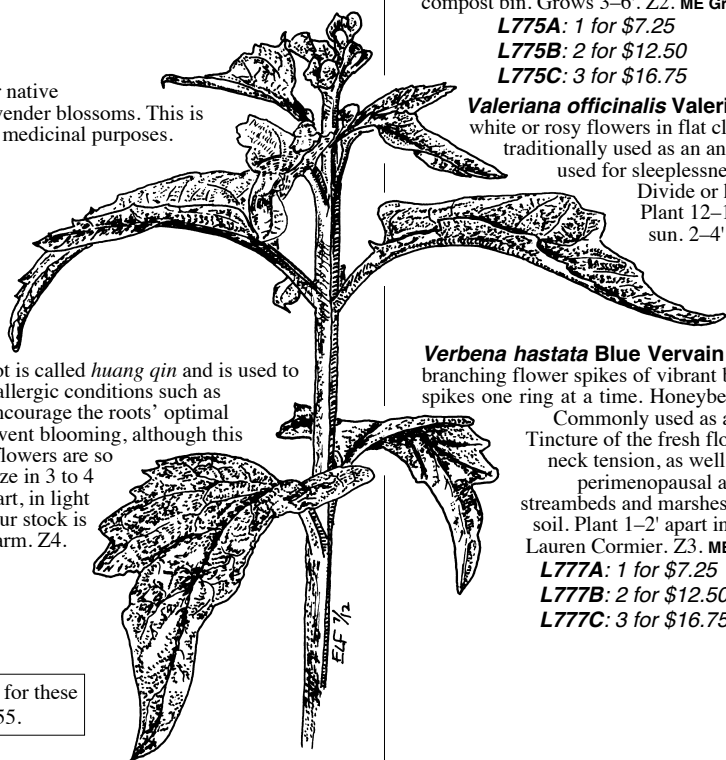
L771A: 1 for \$6.50
L771B: 3 for \$17.00
L771C: 6 for \$30.00

Scutellaria baicalensis Baikal

Skullcap produces indigo monkshood-shaped blooms with shiny green lance-shaped leaves. In traditional Chinese medicine, the root is called *huang qin* and is used to fight gastrointestinal infections and allergic conditions such as asthma, hay fever and eczema. To encourage the roots' optimal medicinal powers, pinch buds to prevent blooming, although this may prove challenging because the flowers are so beautiful. Roots attain harvestable size in 3 to 4 years. Plant in partial shade, 1–2' apart, in light well-drained soil. Grows 1–4' tall. Our stock is certified organic, grown at Ripley Farm. Z4.

ME Grown.

L772A: 1 for \$7.25
L772B: 2 for \$12.50
L772C: 3 for \$16.75



Planting instructions for these perennial plants on page 55.

Stachys officinalis Wood Betony or Woundwort Dense whorls of pink to reddish-purple flower clusters form on square stems held above aromatic dark green scallop-toothed leaves. Aerial parts of betony have a long history of use as a nerve tonic, gently strengthening the entire nervous system. Brings relief from tension headaches and is said to help soothe nervous agitation and "maladies of the head." When the gardening frenzy begins in June, herbalist Lauren Cormier harvests a few leaves before the plant begins to flower, places them in her water jar and sips it throughout the day to bring about a sense of groundedness. Tincture is used to reduce the exhaustion caused by high fever. *Pregnant women avoid.* Grows well in the garden or will naturalize beautifully at the edge of the woods. Plant 12" apart in full to part sun in moist well-drained soil. 18" tall. Sustainably grown by Lauren Cormier. Z4. **ME Grown.**

L773A: 1 for \$7.25
L773B: 2 for \$12.50
L773C: 3 for \$16.75

Symphytum officinale Comfrey or Knitbone

Well known for its skin-soothing properties.

Contains allantoin, promotes healing of skin and bone; also demulcent for lung and throat. Clusters of bell-like pinkish purple flowers dangle above the deep green bristled foliage. Highly recommended as an orchard companion. Research on comfrey is inconclusive, but most agree that this species is the one to use medicinally. Easy-to-grow vigorous plant demands space and *can be very invasive*; be careful where you plant it and control with regular harvest. Space 16–24" apart in well-drained soil, sun or shade. 24–48" tall. Z3. **ME Grown.**



L774A: 1 for \$4.50
L774B: 3 for \$11.25
L774C: 6 for \$20.25

Urtica dioica Stinging Nettle Biodynamic gardeners use the dark green nettles to increase potency of neighboring herbs and to stimulate humus formation. Cooking or drying removes the sting. Young shoots are high in minerals—the leaves are delicious steamed as early spring greens. Dried nettles used as a feed supplement for chickens have a layman's reputation for increasing egg production. Choose your planting spot carefully; nettles spread and the rhizomes and leaves sting. An indicator of super-fertile soil where it volunteers. Plant in damp rich soil with high nitrogen content; especially likes composted manure piles or the lush side of your leaky compost bin. Grows 3–6'. Z2. **ME Grown.**

L775A: 1 for \$7.25
L775B: 2 for \$12.50
L775C: 3 for \$16.75

Valeriana officinalis Valerian A strong and upright plant with small white or rosy flowers in flat clusters above glossy pinnate leaves. Roots traditionally used as an anti-spasmodic, nervine and sedative. Often used for sleeplessness, anxiety and other nervous complaints.

Divide or harvest thick rootstock every 4 to 5 years. Plant 12–15" apart in moist well-drained soil in full sun. 2–4' tall. Z3. **ME Grown. We cannot ship to CT.**

L776A: 1 for \$7.25
L776B: 2 for \$12.50
L776C: 3 for \$16.75

Verbena hastata Blue Vervain Elegant North American native with tall branching flower spikes of vibrant blue-purple flowers that whorl around the spikes one ring at a time. Honeybees mingle amongst the blossoms all day.

Commonly used as a nervous-system tonic and mild sedative. Tincture of the fresh flowering tops is said to ease stress-induced neck tension, as well as help women to navigate premenstrual, perimenopausal and menopausal waters. Grows wild along streambeds and marshes but will happily grow in ordinary garden soil. Plant 1–2' apart in full sun. 5–7' tall. Sustainably grown by Lauren Cormier. Z3. **ME Grown.**

L777A: 1 for \$7.25
L777B: 2 for \$12.50
L777C: 3 for \$16.75

ME Grown = grown in Maine at one of our small local nurseries

Tender Summer Bulbs Spring-planted bulbs offer wonderful variety to the cutflower market and are a staple in old-fashioned gardens. Once upon a time, back roads beckoned my mother to spend many a summer Sunday in search of the best deal on roadside dahlias, glads and lilies. Every few miles she would find buckets brimming with blooms for 10¢ a stem. Nowadays it's more like \$1. Spring-planted bulbs are not hardy to northern climates. Smart and thrifty people lift and store them over the winter; the rest of us treat them as annuals.

Acidanthera See L790 below.

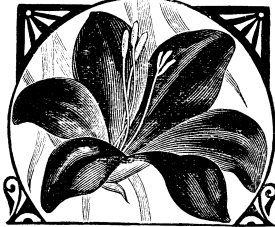
Anemone coronaria De Caen Mix Anemone or Windflower Charming single flowers 1-3" wide are dark purple-blue, red, rose or white and appear in early summer. Good for borders, containers and cutting. Keep moist during the growing season. Soak the knobby tubers in water 24 hours before early spring planting. Plant in full sun, 1-2" deep, 4-8" apart in light sandy soil. 8-10" tall.

L780A: 10 for \$4.25

L780B: 20 for \$7.25

L780C: 50 for \$15.50

Crocosmia x crocosmiiflora 'Lucifer' glows in the garden! Midsummer sprays of bright red flowers open from bottom to top on long arching bronze stems, like bursts of flame above gladiolus-like foliage. *Lucifer* means 'light-bearing' in Latin. Grows well in pots. Makes a long-lasting cutflower. Plant in full sun, 3" deep, 3" apart in moist well-drained soil. 24-36" tall.



L781A: 10 for \$4.00

L781B: 20 for \$7.50

L781C: 50 for \$15.00

Dahlia Sultry Sunset Mix Colors range from amber

to coral, rose to ruby to a warm rich magenta-purple. A grand combination of solids and bicolors, cactus, semi-cactus, decoratives and dinnerplates. Provides endless displays of breathtaking blossoms in a vast array of sizes, shapes and colors, steadily blooming from midsummer till frost—adding incredible late-season value to the cutting garden. Native to hot parts of the Americas and first developed as a food crop, ornamental dahlias are descended from years of breeding and hybridizing *D. pin-nata* and *D. juarezi*. 36-44" tall.

L782A: 3 for \$12.00

L782B: 6 for \$21.00

L782C: 12 for \$38.00



Dahlia Plant 3-4" deep, 12-24" apart. Set the tubers flat with eyes facing up. Grows best with 3-4 hours of direct sun per day, but will tolerate conditions from full sun to light shade. Dahlias often need staking, but close plantings can support each other. Blooms are susceptible to insect damage, especially in the bud stage, so watch for slugs, tarnish bugs, leafhoppers and thrips. Plan a control program ahead of time. Conventional wisdom says to plant after danger of frost, but our former longtime grower in Massachusetts planted his the same time as his peas!

BURIED ALIVE TWO THOUSAND YEARS Lord Lindsay, in his *Travels*, writes, that while wandering amid the pyramids of Egypt, he stumbled on a mummy, proved by its hieroglyphs to be at least 2,000 years of age. In examining the mummy after it was unwrapped, he found in one of its closed hands a tuberous or bulbous root. He was interested in the question how long vegetable life could last, and therefore took that tuberous root from the mummy's hand, planted it in a sunny soil, allowed the rains and dews of heaven to descend upon it, and in the course of a few weeks, to his astonishment and joy, the root burst forth, and bloomed in a beautiful dahlia. Thus is it written into a London newspaper! We do not dispute the fact—very likely the root produced a dahlia; but as the dahlia comes from Mexico, and as Mexico has not been known to Europeans quite 2,000 years, we would humbly suggest that there may be some small doubt whether the dahlia was put into the mummy's hand when it was embalmed, or when it was unpacked. Ibid.

- from *American Agriculturist*, 1849

Gladiolus Sword Lily Showy summer bloomer excels as a cutflower. Each stalk is covered with 10 or more open funnel-shaped flowers that bloom from bottom to top. Named for their sword-like leaves; a *gladiolus* is a small Roman sword. Plant corms 4-6" deep and 6" apart after the last spring frost. Each stalk blooms for about a week, roughly 8 weeks after planting. 36" tall.

G. 'Green Star' Out-of-this-world luminous lime green!

L783A: 10 for \$4.75

L783B: 20 for \$8.10

L783C: 50 for \$18.00

G. 'Nori' Violet-blue with a prominent cream-colored throat. A customer favorite—not included in the Blue Moon Mix listed below.

L784A: 10 for \$4.75

L784B: 20 for \$8.10

L784C: 50 for \$18.00

G. 'Plum Tart' A dark purplish wine, very classy.

L785A: 10 for \$4.75

L785B: 20 for \$8.10

L785C: 50 for \$18.00

G. 'Raven' Dark red with a suggestion of black.

L786A: 10 for \$4.75

L786B: 20 for \$8.10

L786C: 50 for \$18.00

G. Blue Moon Mix Brilliant blue-violet color combinations for your cutflower fantasies.

L787A: 10 for \$4.75

L787B: 20 for \$8.10

L787C: 50 for \$18.00

G. Ravishing Reds Mix A rambunctious combination of red shades and variations.

L788A: 10 for \$4.75

L788B: 20 for \$8.10

L788C: 50 for \$18.00

G. Large-Flowering Glad Mix

L789A: 10 for \$4.25

L789B: 20 for \$7.75

L789C: 50 for \$17.00

Gladiolus murielae Acidanthera or Fragrant Gladiolus Sword-like foliage is topped by wonderfully scented star-shaped 2" white flowers with mahogany-purple centers on arching stems. Beautiful in the garden or as a cutflower; another name is Peacock Orchid. Culture like gladiolus, but blooms slightly later. 24" tall.

L790A: 10 for \$3.50

L790B: 20 for \$5.50

L790C: 50 for \$12.00



Gladiolus Stagger plantings for flowers from summer to frost. Hilling or staking may be needed if their sword-shaped foliage and 3-4' flower spikes get top heavy. Cut when 2-3 flowers have opened, taking care to spare the leaves, which feed the developing corm. Dig up the corms after the tops have died, discard the old one, clean the new one, dry, and store loose (no peat) in a cool dry place. Thrips are a problem for glads. Infestations are indicated by yellowing and spotted foliage. Be prepared lest they harm your plants and prevent flowering. Consider a control program—possibilities include insecticidal soap, garlic, pyrethrum or rotenone—to use at the first sign of infestation.



Overwintering Summer Bulbs

Spring-planted summer-blooming bulbs, corms and tubers will not survive northern winters outdoors. To save them for next year, dig them up in the fall after the foliage dies, gently brush off any soil and debris, and dry them. Store somewhere dark and cool (40-50°) in dry peat or sawdust, then replant in spring. You can also grow them in pots and relocate as the weather dictates. Alternatively, treat them as annuals and compost them at the end of the season.

When you get your order: Immediate Care

When your new trees and plants arrive, they need to be planted as soon as possible. Don't be deterred by snow. If you can dig a shovel into the ground, plant your trees. If you wait until spring is in full swing, your plants might become stressed and have a hard time recovering. Sometimes frozen ground makes immediate planting impossible. When this is the case, follow the instructions below and all will be well. **Why do we send plants even when there is snow on the ground?** The weather may be fickle but we must be steady. We are dealing with bare-root trees that have to be moved out of storage and sent to their new homes in early spring. For our system to work, we must follow a tight shipping schedule regardless of regional weather conditions. We begin shipping around March 31 and finish around April 14, sending orders by climate zones, warmer zones first.

DO NOT ALLOW ROOTS TO DRY OUT AT ALL!!!

Planting Woodyies Within 48 Hours

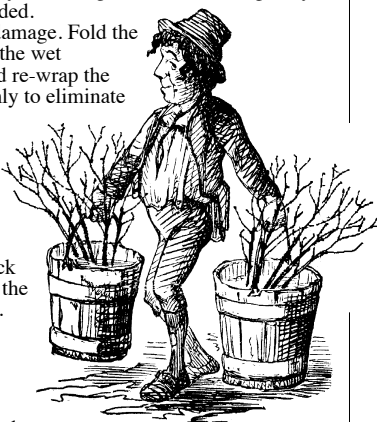
Leave the plastic wrapping around the root ball. Add some water to remoisten the packing material and store your trees and shrubs in a cool shaded place like a shed, barn or cellar. Avoid heat and sunlight.

If You Cannot Plant Within 48 Hours

You can keep plants for a week or two by following one of these temporary measures and continuing to water as needed.

- Open your package and inspect for damage. Fold the plastic back from around the tops. Keep the wet shredded newspaper around the roots and re-wrap the plastic around the root ball, packing firmly to eliminate air pockets. Water as needed to keep the roots moist, but don't let them stand in water. Keep the trees in a cool shaded or dark place like a shed, barn, cellar or garage but don't allow the plants to freeze. Avoid heat and sunlight.

- "Heel in" your plants in a protected cool, shady spot. Dig a trench or turn back an appropriate amount of earth and bury the roots; tamp firmly to remove air pockets. Water thoroughly. Plant in permanent location as soon as possible.



Caring for Other Plants

Asparagus

Open up asparagus roots and store dry and uncovered in a cool shaded place.

Hops

Refrigerate slightly moistened rhizomes in a plastic bag until planting.

Horseradish & Rhubarb

Open package slightly to allow the plants to breathe. They should be fine left in their packaging and kept in a cool place (ideally 35–50°). They want to stay moist but not wet.

Mushroom Spawn

Refrigerate until ready to use.

Strawberries

We ship with the roots slightly on the dry side. If it's going to be a while until planting, mist the roots and re-cover. Refrigerate until you are ready to plant.

Perennials

Open bags and check the stock immediately. Roots and crowns should be firm and pliable, not squishy or brittle. If they are slightly dry, add a little water, or, if they are going to be potted up soon, wet the roots. Generally, a little surface mold is harmless and will not affect the plant's future performance. Pot up crowns and roots; **do not plant directly outdoors**. If you cannot pot the crowns up immediately, store them in a cool (35–40°) location for a short time. See page 55 for details.

Sweating Nursery Stock

Some trees and shrubs become extremely dormant during refrigerated storage. These include: Amelanchier (juneberry), Betula (birch), Cercis (redbud), Crataegus (hawthorn) and Quercus (oak).

Sweating nursery stock ensures breaking of dormancy. Most of the time you can skip this process because the plants will begin to wake up while they're in transit to you. If they don't, then follow these instructions:

The easiest way to force any tree to break bud is to pot it and set it in a greenhouse or polyhouse. After the tree begins to leaf out, transplant it outdoors. If you don't have a greenhouse, lay the trees in a shady place, 45–70°, such as a garage, basement, barn, greenhouse or outdoors in the shade. Cover the whole plant with very damp packing material (hay, newspaper, etc.) followed by a sheet of plastic. Sweating will take several days; check the buds every day. The trees are ready to plant when the buds begin to swell.



TREE PLANTING AND CARE

Choosing a Site for Fruit Trees and Berries

The best sites for fruit crops have well-drained fertile soils, protection from wind, good air drainage and full sun. A gentle slope and 6–8 hours of full sun per day is ideal. Good air flow will moderate frosts and fungal disease. If possible, avoid "frost pockets."

Sunny south- or west-facing slopes are not advisable for less hardy varieties. These slopes tend to warm up before the danger of frost has passed. Trees may flower prematurely and then be damaged by frost, causing loss of fruit. South and west slopes may also have widely fluctuating early spring temperatures that can damage less hardy trees.

Soil pH for fruit trees should be between 5.5 and 8.0, towards the lower end for apples, the higher end for peaches, and in the middle for others. Fruit species have optimal space requirements. See chart on page 69.

Do not plant trees where power lines will interfere with them.



Fall Preparation or Spring Initial Feeding for Fruit Trees

If you're interested in preparing locations for your trees this fall, or for feeding newly planted fruit trees, the following amendment recipe should address most sites in the eastern U.S., which tend to be acidic and moderate to low in calcium and phosphorus. You can apply this mix as a mulch to your newly planted tree in the spring. To order any of these products, refer to the **Organic Growers Supply** section of our Seeds catalog or website.

Deluxe Method

Without digging the hole, cover an area 4–6' in diameter with:

- 5 lbs gypsum or Hi-Cal lime
- 5 lbs colloidal phosphate (short-term calcium and phosphorus)
- 5 lbs azomite (long-term minerals and trace minerals)
- 5 lbs granite meal or greensand (for improved soil texture)
- 2–3 lbs menefee humates (aids mineral and rock-powder breakdown)

For building high levels of humus, also add:

- 2 lbs alfalfa meal
- 2 lbs bone char or bone meal
- 2 lbs kelp meal
- 2 lbs blood meal
- 100 lbs compost (1/8 yard)
- BioDynamic preps (optional)

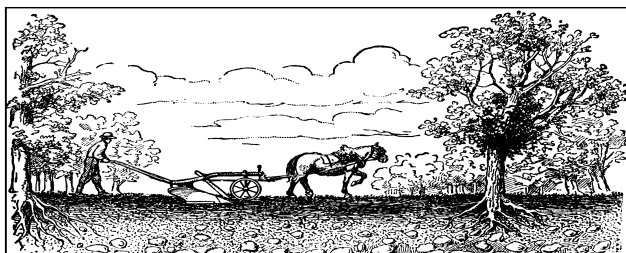
Cover with a 3–4" mulch of lawn clippings, leaves or "brush" chips, which will smother the sod, conserve moisture, prevent leaching and provide a habitat for soil organisms to break down the recipe. In the spring, pull back the mulch and dig your tree hole, incorporating the mineral supplements and compost into the backfill.

Simpler Method

Forgo the soil amendments and simply pile 1–2 wheelbarrows of compost on each planting-hole site. If you live by the ocean, add a couple of wheelbarrows of seaweed. Then cover with mulch. In the spring, pull back the mulch and plant your fruit tree, incorporating the compost into the hole as you dig.

Feeding older fruit trees

Cover the surface of the ground out to the drip line with the same materials listed above. For larger trees (five years and older) increase the mineral amount to 10–15 lbs each. For ancient trees you can use up to 25 lbs of each mineral in a ring beneath the drip line. Mulch as described above.



The old adage that eternal vigilance is the price of success holds good in fruit raising, and with vigilance, with care, and intelligent labor at all seasons nothing pays better dividends, nothing adds more to the comfort of the family than an orchard, but if one expects to raise fruit without labor, without eternal vigilance, he is in the end doomed to disappointment.

- Agriculture in Maine, 1874

The basics of tree care outlined here are meant to get you going. Obviously, we can't tell you everything you need to know in a few pages. Some specific information, like location or soil preferences of particular plants, is in the item descriptions. A soil test is useful in determining the specific needs of your site. Reading, observation, trial and error, and talking with other growers and with extension agents can expand your knowledge of trees and shrubs.

Consult the Fedco Seeds catalog's book list for recommended reference books, or look for information online, including useful links at our website, fedcoseeds.com.

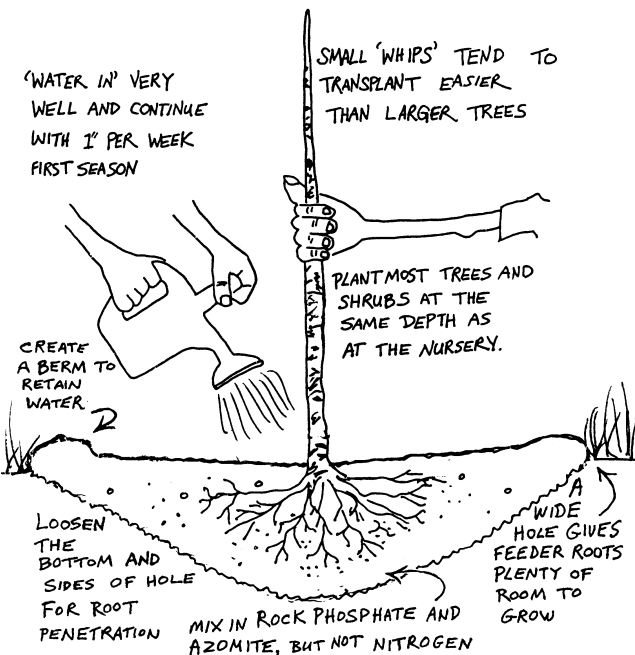
General Planting Directions for Trees and Shrubs

The best way to ensure your plants will thrive is to follow cultural requirements. Choose the right site for the plant. Add soil amendments only as needed. Many native plants don't require any fertilization.

To reduce transplant shock, plant on cool cloudy days in the early morning or late afternoon. Soak deciduous trees and shrubs for up to 24 hours before planting. Keep the roots from drying out; even a few minutes in the sun and breeze can kill a tree or shrub. Keep them in a bucket of water as you plant.

Follow these steps for planting:

1. Dig a large hole, at least twice as wide and about as deep as the root system. Most roots grow laterally and need plenty of room to spread out. Your trees will benefit if the hole is at least 3' wide.
2. Loosen up the soil at the bottom of the hole and especially around the sides. For fruit trees, if you haven't used a deluxe fall preparation, you may add a 3-lb bag of our planting mix (available from the **Organic Growers Supply** section of the Fedco Seeds catalog), or well-aged compost and mineral fertilizers like rock phosphate or azomite, but not manure or other nitrogen sources. Incorporate into the soil, then make a mound at the bottom of the hole over which to spread the roots.
3. Examine the plant for a "dirt line" or a change in bark color indicating nursery depth. (This is different from the graft line.) Generally, you should plant trees and shrubs at the same depth they grew in the nursery. Set the plant in the hole and spread the roots out around the mound. Make sure the roots are not circling in the hole. It's better to trim roots a bit than coil them. Hold the plant at the right depth as you backfill the soil around it. Tamp firmly to remove air pockets.
4. Water immediately. Don't skimp on the initial watering; make sure there's plenty to settle in all that loosened soil. Wiggle the trunk as the water seeps in to ensure no air pockets remain around the roots. Leave a berm around each tree so water will not run off. Keep them well watered throughout the first summer. They require the equivalent of 1-2" rain per week. A good soaking is effective; sprinkling is not.
5. If you want to remember which variety you planted, replace the plastic Fedco tag with a permanent tag. See below.



The Perfect Tree Label

Commercially available garden labels do not last. Sharpies® always fade. Aluminium tears off in the wind. And so on. Now, we make our own. We use vinyl siding. Vinyl siding works so well, we should remove it from all the houses in the world and make it all into plant labels. It's inexpensive, or easily salvaged, and you can make dozens from a single piece of siding. Cut siding into strips using a utility knife. Snip strips to length using hand pruners. Drill a hole at one end. Attach with wire. Write information on labels with pencil, NOT a marker. Pencil will last for decades.

Initial Pruning at Planting Time

All Trees and Shrubs

It's okay to prune any branches that were broken during shipping. Sometimes we need to prune a central leader in order to fit a tree into a shipping box; don't worry—a new leader will grow from the topmost bud. Prune all dead or injured branches and roots. Further pruning of most trees is not necessary at planting time. Do not prune tops or prune or bend tap roots of nut or oak trees. Find general information on pruning on p. 43. Conifers (p. 33), roses (p. 46) and lilacs (p. 50) benefit from special pruning especially in later stages of growth.

All Fruit Trees

Avoid pruning young trees except to establish a basic shape, as it delays bearing. It's okay to cut off extra trunks and large branches. Always remove suckers or root shoots. On peaches and plums, the trees may want to develop 2-4 leaders, or an open-vase shape. Always prune just above a good strong bud that faces a direction you'd like your plant to grow. On apple and pear trees, you may choose to either leave the central leader alone and let it grow or cut it back according to the instructions below. Either way is acceptable; it's a matter of personal preference.

Apple Trees

Standard and semi-dwarf (Bud 118 and M111) apple trees will almost always benefit from pruning when first planted, to establish the long-term basic shape of the tree. Then refrain from pruning until the tree begins to fruit. Every time you prune potential leaf-bearing branches from a young tree, you set it back. The tree will grow quickly and fruit sooner if you allow it to maximize photosynthesis. Once it begins to fruit, you can prune annually.

• **Year one (initial planting time):** If the tree is a branch-less "whip," you may cut the top back to a strong bud about 3-4' from the ground. This will encourage branching. The lowest scaffold (branch layer) should be very wide to collect as much sun as possible. If too low, these long branches will rest on the ground under the weight of fruit, and the deer will have a field day. Also, it becomes difficult to mow, mulch, etc.

If the new tree arrives *with* branches, prune off all but 3-4 branches at the height you'd like for your first tier, also at about 3-4', or higher if you prefer.

Some folks choose to not prune at the time of planting and wait to shape the tree in subsequent years. This method is fine, too.

• **Year two:** Trim off root suckers or other odd branches that come up from around the base. Otherwise, leave the tree be and let it grow.

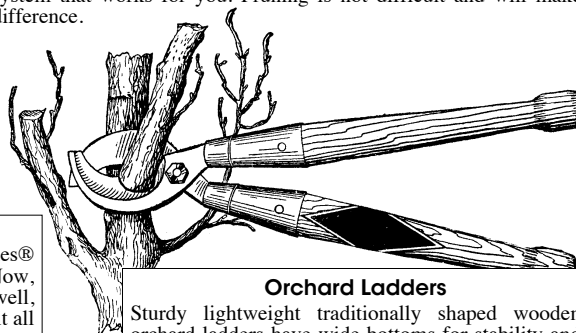
• **The next few years:** If something looks really crowded, broken or dead, prune it. Otherwise, leave your tree alone and let it grow. If you don't fuss over it too much, you'll get fruit sooner!

Once your fruit tree begins to bear you will want to prune annually.

Good pruning brings sunlight to all parts of your tree. Maximum sunlight encourages more and higher-quality fruit. Sunlight also encourages fruit buds to form for next year's crop. A well-pruned tree will produce larger fruit and will tend toward more annual bearing. Good pruning discourages fungal diseases and promotes greater spray penetration. There's an old saying that a bird should be able to fly through your fruit tree.

Most pruning should be done in late winter or early spring. We recommend a good-quality pair of hand shears and a lightweight pruning saw. You may also wish to invest in long-handled loppers, a pole pruner or a pole saw. Keep your pruning tools sharp for smooth, clean cuts.

Any good book on growing fruit trees will have the information you need. Consult old and new books as well as orcharding articles and develop a system that works for you. Pruning is not difficult and will make a huge difference.



Orchard Ladders

Sturdy lightweight traditionally shaped wooden orchard ladders have wide bottoms for stability and narrow tops for easy handling and placement.

Contact the manufacturer:

Peter Baldwin, (207) 722-3654, baldwin@acadia.net

Mulch

Keep weeds and especially grass away from new trees and shrubs. Apply a 2-4" mulch of composted material, leaves, wood chips or hay out as far as the drip line. A 1/2-1" topdressing of alfalfa meal beneath the mulch may substantially reduce transplant shock. Keep mulch back several inches from the tree trunk. We lay down cardboard or newspaper and spread mulch on top of it. Mulch encourages earthworms, holds moisture, keeps down weeds, insulates against excess heat and cold, aerates and loosens soils, builds humus and fertilizes feeder roots, 90% of which are within 6" of the surface.



Staking

Newly planted standard-sized fruit trees and ornamental trees seldom need staking. Semi-dwarf trees may require staking. If your tree is in a very windy site or develops a leaning habit, staking may help. Drive a stout post near the tree. Wrap the tree trunk with a scrap of burlap or rubber to protect against abrasion. Secure the wrapped part of the tree to the post with string or wire. Tie tree somewhat loosely, as a slight rocking motion will encourage rooting. Once roots are well anchored, the stake may not be needed. Mark small trees with a stake with ribbons to warn operators of lawn mowers, tractors, cars, skidders and skateboards.

If he can do no more, let no one fail to plant one tree and nourish and protect it. The petted tree will learn to lean on him as the child looks to the parent for protection and sympathy; and it will return him a grateful and exceeding great reward. His children will desport themselves under the shadow of its branches, and find health and solace in its fruit; and his children's children to the fourth generation, when, perchance, no other monument shall remain to declare the story of his life.

- Agriculture of Maine, 1874

Spacing of Fruit Trees, Nut Trees & Berries

	between plants	between rows
Apples, Dwarf	7-8'	15'
Apples, Semi-dwarf	15'	15'
Apples, Standard	25-30'	25-30'
Asparagus	1-2'	4'
Blackberries	3-4'	6-12'
Blueberries, highbush	3-6'	8-10'
Blueberries, lowbush	1'	1'
Grapes	8'	8-10'
Hazel	4-6'	hedge
Kiwis	10'	10'
Nut trees - orchard	35'	35'
Nut trees - forest	20'	20'
Pears, Asian Pears	20'	20'
Raspberries	2'	6-12'
Stone Fruit	15-20'	15-20'
Strawberries	see instructions, p. 27	
Sweet Cherries	25'	25'

Beware the Apple Borer!

In many parts of central and northern New England the roundheaded apple-tree borer, *Saperda candida*, is the **number one enemy** of young apple, crabapple and quince trees. If you are growing young apple trees in these locations, you *must* protect your trees from this pest. Farther south and north the borer may not be a pest. If you don't know if they are a problem in your area, check with any grower near you: they'll know. Otherwise, err on the side of caution. The borer does not endanger other fruit trees or ornamentals.

Borer beetles lay eggs under the bark near the base of the tree. The developing larvae tunnel through the wood, eventually weakening the tree until it falls over. The trouble sign is small deposits of orange sawdust, called frass, at the base of the tree, usually appearing in June or July. Locate the hole or soft spot in the trunk and insert a wire until you locate and kill the larvae. Cut away soft, spongy pockets with a knife. Even serious carving is less harmful to the tree than leaving the larvae alive inside. Left unchecked, borers usually mean death for your trees.

Blasted Borers

When you discover a soft spot or hole in the tree, get yourself a can of compressed air (for cleaning computers). Put the long skinny tube nozzle up to the hole and give it a blast. Should do the trick.

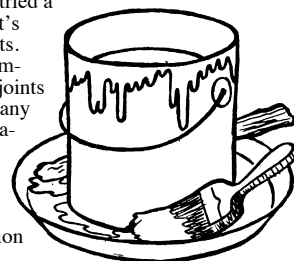


The Polyculture Deterrent

Borer beetles thrive in shady moist warm environments. Keep grass back at least 6" from the tree base. Trials in our "functional" orchard suggest that a mixed polyculture environment may disguise the apple trees and fool the borers. We plant woody and herbaceous perennials around the trees, keeping them back 12" or so. Borers are lazy opportunists. If there are a lot of apple trees within easy reach, they will attack. Otherwise, you may never see them. The polyculture orchard may present too much work for them. So far, we've been able to keep this orchard clear of borers with no painting. (See below.)

Paint the trunks

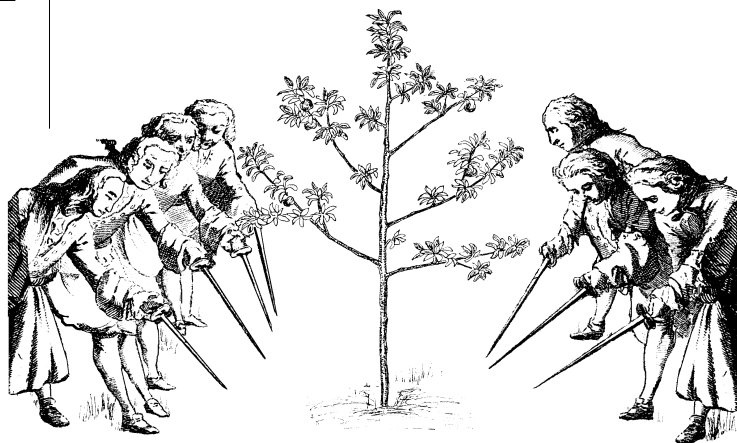
Painting is likely the best deterrent. I've tried a number of recipes and this is my favorite. It's easy and requires no hard-to-find ingredients. Mix white interior latex paint with joint compound. (The stuff you smear on sheet rock joints and nail holes—you can buy a small tub at any hardware store. Some exterior paint formulations contain ingredients that can harm the underlying phloem.) The consistency should be thick but still quite easy to paint, not glob on. Repaint as needed. This mix will help deter borers and also make detection of infestations easier. Look for the frass!



We are experimenting with a borer-prevention formula using more benign ingredients. It doesn't last or adhere as well as the paint-joint compound mixture, but it appears to work fairly well.

2 qt quick lime
4 gal milk
1 gal boiled linseed oil

Mix well. Thicken as needed with clay or Surround (available in the Organic Growers Supply section of the Fedco Seeds catalog). Apply with a paint brush. Reapply as needed.



The worst enemy that I have to contend with in the orchard is the borer, and I know of but one sure preventative and that is the death of the pest. A wash occasionally of whale oil soap suds will in a large measure prevent his getting into the tree, still you must ever "watch and pray" and go through your orchards occasionally with knife and wire and see that this terrible pest does not long remain in the tree.

- Agriculture of Maine, 1883

Protecting Trees from Mice and Voles

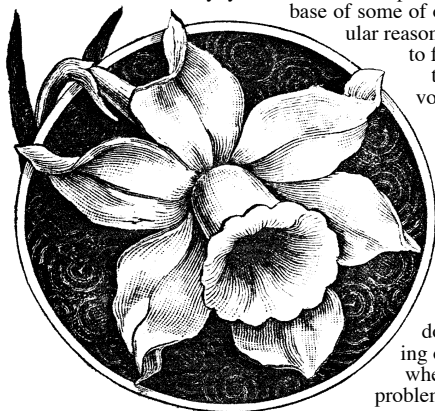
Fruit trees and ornamentals are sometimes girdled by mice or voles eating the bark. Girdling will usually kill the tree or shrub. The danger is greatest in winter. Stomp around the trunks after each fresh snowfall to create a packed-ice barrier that will prevent mice from traveling beneath the snow. Keep the grass mowed in the fall and remove large mulch piles from near the trunks. Rodents like to nest in hay more than in chip mulches. A wrap of window screening or a plastic spiral tree guard will protect your tree from being girdled. If you use screening or plastic spiral tree guards on apple, quince or crabapple trees, remove them from April to October, as they attract borers if left on the tree in the summer. You can leave plastic spiral tree guards on most other trees year-round.

Our trials show that a mulch of wood chips surrounding young trees greatly reduces the chance of summer vole damage. Tall grasses invite them in. The polyculture model may provide cover for the voles and can result in summer vole damage. Keep the tall perennials back about 12" from the tree. Make your orchard hawk friendly.

Voles Don't Like Narcissus!

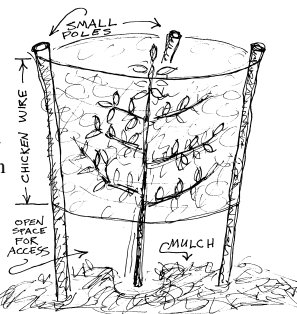
For many years we've been planting daffodils around the base of some of our apple trees. No particular reason; it just looks great. Come to find out that you can beautify your orchard and deter voles at the same time. Plant daffodils in a circle a foot or two away from the base. The tunneling voles don't like the bulbs and will veer away.

We don't have the super-destructive pine voles in our orchard—whether or not the bulbs would deter them, we don't know. We're continuing our trials in Massachusetts where the pine voles are a big problem.



Oh Dear, Deer!

The best deer protection is a collie in the yard. If you don't have a dog or if your orchard is too far from the house, an 8' sheep fence will work. Some people have good luck with electric fences. Small protective fence enclosures can be made by circling your tree with a cylinder of chicken wire or other fencing.

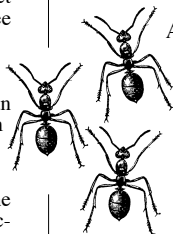


Aphids and ants

Aphids can do a lot of damage to apple trees and they make the young leaves look gross.

Whenever you see aphids you will see ants climbing up and down the tree feeding them. Here's an easy solution. Wrap a piece of stiff paper about 6" wide around the trunk about a foot or two off the ground.

Tape this "sleeve" to itself but not to the tree. Smear Tanglefoot (available in the **Organic Growers Supply** section of our Seeds catalog) on the paper. Ants will not cross the barrier and, without the ants, the aphids will die. In a day or two no more aphids.



Knowing mice prefer oats to any other grain, I have supplied my mice each fall with the amount my judgement told me would be sufficient to winter them, and that is the principal protection I have given my orchard. A little observation in spring has shown me where the mice most winter and there I leave the most feed. I have used tarred sheathing paper around trees to a limited extent, but if the mice are driven to the necessity of living on the bark, they will gnaw the tree above the paper. A little observation during the summer and fall will determine whether there are few mice or many, and I provide for them accordingly.

- *Agriculture of Maine*, 1886



Join Fedco as a Consumer Member-Owner!

Fedco Trees has been one of our cooperative's great success stories. In the past two years it has enjoyed record growth and has generated significant working capital for our entire enterprise. Once struggling to break even, its crew laboring in overcrowded and unpleasant conditions, Trees has had a marvelous transformation.

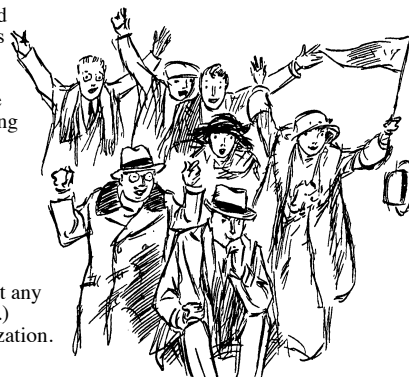
Five years ago, with the help of equity from our loyal members, we purchased new digs for our Trees warehouse and our office in Clinton. At \$520K this was the largest capital investment in our history. This year we are moving our mailing address to Clinton and we are going solar! Solar panels in the field in back of our warehouse will generate enough electricity to meet 94% of our entire cooperative's need.

You can become a proud owner of this fine facility and help us invest in solar, our long-term commitment to our planet. Green energy for Fedco so we can continue to send out green energy in our products! Join the more than 1,000 consumer-members who are providing us with the long-term support to keep our businesses thriving.

We are asking for \$100 membership equity, or if this would prove a hardship, there is a \$25 option, refundable at any time upon request. (If you pay by credit card we will charge your card \$105 or \$27 to cover the processing costs.) Please note that membership is by household (only one membership per household, please) or by farm or organization.

Mushroom spawn, blueberries, heirloom apples, and now solar power, too. What better time to join us?

—CR Lawn, President, Fedco Seeds Inc.



Why Join Fedco as a Member?

- Membership = ownership. Own a piece of Fedco!
- Your membership equity helps finance our new facility, reducing our interest expense.
- Enjoy benefits such as a 1% discount on all your orders, and member-only Seeds specials!
- Happy with our products, prices and catalogs? Help us to endure and thrive for many years to come! Keep that humor, those bad puns and occasional rants coming!
- Support our politics around food policy and seed issues? Help us fulfill our mission!

If you have any questions please email us at questions@fedcoseeds.com or call 207-426-9900.

Yes, I want to join Fedco as a consumer member-owner!

Enclosed is a check for my refundable membership deposit of \$100. Please make membership certificate out to:

Name _____

Address _____

City _____ St _____ Zip _____

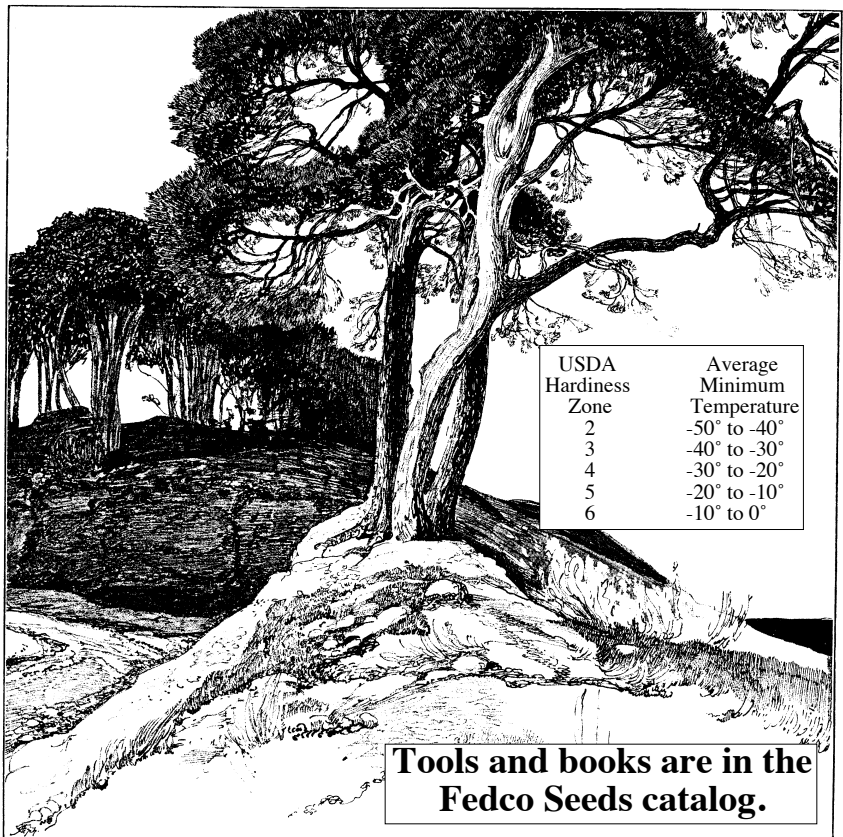
Customer # (if you know it) _____

Email address _____

PO Box 520, Clinton, ME 04927

Index

	Page		
<i>Abies</i>	33	Cider Apple	4-15
<i>Acer</i>	32	<i>Claytonia</i>	56
<i>Achillea</i>	55, 63	Clematis	57
Acidanthera	66	<i>Clethra</i>	40
<i>Aconitum</i> spp.	55	Collections	
<i>Actaea</i>	63	Cider Apple	7
<i>Actinidia</i>	29	Crabapple	44
Agri-gel	25, 33	Grape	29
<i>Alcea</i>	55	Heritage Apple	7
<i>Alchemilla</i>	63	Hybrid Plum	22
<i>Althaea</i>	64	Lingonberry	52
<i>Amelanchier</i> spp.	39	Orchard Companion	63
Anemone	66	Perry Pear	17
<i>Apios</i>	30	Columbine	55
Apple	4-16, 44	Comfrey	65
Apricot	19	Comfrey, Russian	63
<i>Aquilegia</i>	55	Coneflower	64
Arborvitae	33	Conifers	33
<i>Arctostaphylos</i>	51	Cornelian Cherry	41
<i>Arisaema</i>	56	<i>Cornus</i> spp.	41
<i>Aristolochia</i>	30	<i>Corylus</i>	31
<i>Armoracia</i>	53	Crabapple	44
<i>Arnica</i>	64	Crampbark	51
<i>Aronia</i> spp.	39	Cranberry, American	52
<i>Artemisia</i>	64	Cranberry, Highbush	51
<i>Asarum</i>	64	Cranesbill	58
<i>Asclepias</i> spp.	56	<i>Crataegus</i>	42
Asian Pear	19	Crocsmia	66
Asparagus	53	<i>Cydonia</i>	42
Aster	62	Dahlia	66
<i>Astilbe</i>	56	Dawn Redwood	33
<i>Astragalus</i>	64	Daylily	58
<i>Baptisia</i>	56, 63	Delphinium	57
Basswood	32	<i>Dicentra</i> spp.	57
Bayberry	45	<i>Dictamnus</i>	57
Beach Plum	46	Diervilla	42
Bearberry	51	<i>Digitalis</i>	57
Bearded Iris	59	Dogwood	41
Bee Balm	63, 65	Dutchman's Breeches	57
Bellflower	56	Dutchman's Pipe	30
Berries	24-27	Echinacea	64
<i>Betula</i>	32	<i>Echinops</i>	57
Birch	32	Elderberry	49
Blackberry	25	Elm	32
Black Cohosh	63	<i>Eryngium</i>	57
Black Raspberry	25	<i>Erythronium</i>	57
Black Walnut	31	<i>Eupatorium</i>	63
Blazing Star	59	Evergreens	33
Bleeding Heart	57	False Indigo	56, 63
Bloodroot	62	Feather Flower	56
Blueberry	25-26	Ferns	58
Blue-eyed Grass	62	Filbert	31
Blue Flag	59	Fir	33
Blue Vervain	65	Forsythia	42
Boneset	63	Foxglove	57
Books	9, 15	<i>Fragaria</i>	27, 64
<i>Buddleia</i>	40	Fringetree	40
Bulbs	66	Garden Roots	53
Butterfly Bush	40	Gas Plant	57
Butterfly Weed	56	<i>Gaultheria</i>	52
Butternut	31	Geranium, Wild	58
Buttonbush	40	Ginger, Wild	64
<i>Calluna</i>	51	Ginkgo	32
<i>Campanula</i>	56	Gladiolus	66
Cane Fruits	24-25	<i>Gleditsia</i>	32
<i>Caragana</i>	40	Globe Thistle	57
Cardinal Flower	60	<i>Glycyrrhiza</i>	64
<i>Carpinus</i>	32	Goldenseal	64
<i>Carya</i> spp.	31	Grape	28-29
<i>Castanea</i>	31	Groundcovers	51-52
Catmint	60	Groundnut	30
<i>Ceanothus</i>	40	<i>Gymnocladus</i>	32
Cedar, Eastern White	33	<i>Hamamelis</i>	43
<i>Cephalanthus</i>	40	Hawthorn	42
<i>Cercidiphyllum</i>	32	Hazelnut	31
<i>Cercis</i>	40	Heather	51
<i>Chelone</i>	56	<i>Heimerocallis</i>	58
Cherry, Cornelian	41	<i>Heptacodium</i>	43
Cherry, Dwarf Sour	46	Hibiscus	59
Cherry, Nanking	46	Hickory	31
Cherry, Pie	20-21	Hollyhock	55
Cherry, Sweet	20	Honeylocust	32
Chestnut	31	Honeysuckle, Bush	42
Chinese Milk Vetch	64	Honeysuckle, Dropmore	30
<i>Chionanthus</i>	40	Hops	53
Chokeberry	39	Horseradish	50
		Hosta	59
		<i>Humulus</i>	30
		Hydrangea	43



USDA Hardiness Zone	Average Minimum Temperature
2	-50° to -40°
3	-40° to -30°
4	-30° to -20°
5	-20° to -10°
6	-10° to 0°

Tools and books are in the Fedco Seeds catalog.

<i>Hydrastis</i>	64	Peach	21	Spruce	33
Hyssop	63, 64	Pear	17-19	<i>Stachys</i>	65
<i>Ilex</i>	43	Peashrub	40	Stewardship Apple	14
Iris	59	Pecan	31	Stinging Nettle	65
Ironwood	32	Peony	61	Stone Fruit	19-23
Jack-in-the-Pulpit	56	Perennial Plants	55-65	Strawberry	27, 64
<i>Juglans</i> spp.	31	<i>Perovskia</i>	62	Strawberry, Alpine	64
Juneberry	39	Perry Pear	17-18	Summersweet	40
Katsura Tree	32	<i>Philadelphus</i>	45	Sword Lily	66
Kentucky Coffeetree	32	Phlox	62	<i>Symphyotrichum</i>	62
Kiwi, Hardy	29	<i>Physocarpus</i>	46	<i>Symphytum</i>	63, 65
Lady's Mantle	63	<i>Picea</i> spp.	33	<i>Syringa</i> spp.	50
Lavender	65	Pine	33	<i>Tanacetum</i>	62
<i>Levisticum</i>	65	Plum	22-23	Tansy	62
<i>Liatris</i>	59	Plum, Beach	46	<i>Thuja</i>	33
Licorice	64	<i>Polygonatum</i>	62	Thyme, Creeping	63
Lilac	50	Poppy, Oriental	61	Tiger Lily	60
Lily	60	Pruning	43, 68	<i>Tilia</i>	32
Linden	32	<i>Prunus</i>	16, 19-23, 46	<i>Tradescantia</i>	63
<i>Lindera</i>	43	Pulmonaria	62	Tree Peony	61
Lingonberry	52	<i>Pulsatilla</i>	62	<i>Trillium</i> spp.	63
Lobelia	60	Pussy Willow	48	Trollius	63
<i>Lonicera</i>	30	<i>Pyrus</i>	16-19	Trout Lily	57
Lovage	65	<i>Quercus</i>	32	T-shirt	13
Lungwort	62	Quince	42	Turkscap Lily	60
<i>Malus</i>	4-16, 44	Raspberry	24-25	Turtlehead	56
Maple	32	Rattlesnake Master	57	<i>Ulmus</i>	32
Marshmallow	64	Redbud	40	<i>Urtica</i>	65
Medicinal Plants	63-65	<i>Rheum</i>	53	<i>Vaccinium</i> spp.	25-26, 52
Medlar	45	Rhubarb	53	Valerian	65
<i>Mespilus</i>	45	Rootstock	5, 16, 38	<i>Viburnum</i> spp.	51
<i>Metasequoia</i>	33	Rose	46-47	Vines	28-30
Milkweed, Red	56	<i>Rubus</i>	24-25	<i>Vitis</i>	28-29
Mockorange	45	Sage, Russian	62	<i>Verbena</i>	65
<i>Monarda</i> spp.	63, 65	<i>Salix</i> spp.	32, 48	Walnut	31
Monkshood	55	<i>Sambucus</i>	49	Weigela	51
<i>Monarda</i> spp.	45	<i>Sanguinaria</i>	62	Wild Bergamot	63, 65
Mulberry	45	Scionwood	16, 37-38	Wild Raisin, Northern	51
Musclewood	32	<i>Scutellaria</i>	65	Willow	32, 48
Mushrooms	54	Serviceberry	39	Windflower	66
<i>Myrica</i>	45	Seven-son Flower	43	Winterberry	43
Nannyberry	51	Shadbush	39	Wintergreen	52
<i>Nepeta</i>	60	Shade Trees	32	Witch Hazel	43
New Jersey Tea	40	<i>Sisyrinchium</i>	62	Wood Betony	65
Ninebark	46	Skullcap	65	Wormwood	64
Nuts	31	Solomon's Seal	62	Yarrow	55, 63
Oak	32	Spicebush	43	Order Forms	35-38
<i>Papaver</i>	61	Spiderwort	63		
Pasque Flower	62	Spring Beauty	56		

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Sunday noon-4

November 5-6
Franklin County CiderDays
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9 until 3, at our
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*original catalog art by
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Ordering Information p. 34
Index inside back cover

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